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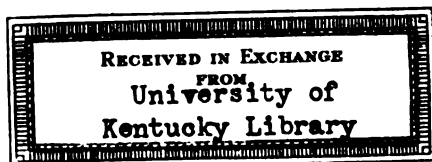
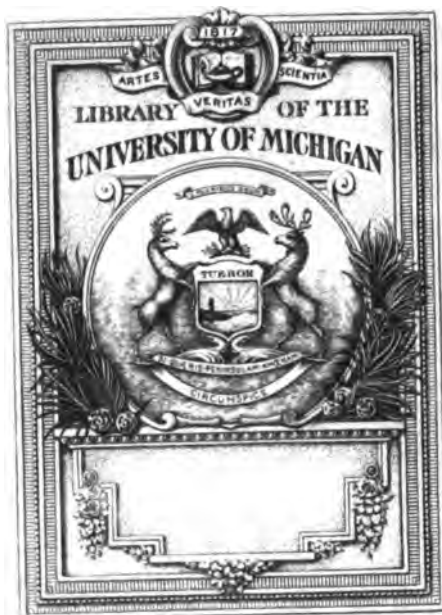
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U.S. WAR DEPARTMENT  
Annual Reports, 1912

(IN FOUR VOLUMES)

Volume IV

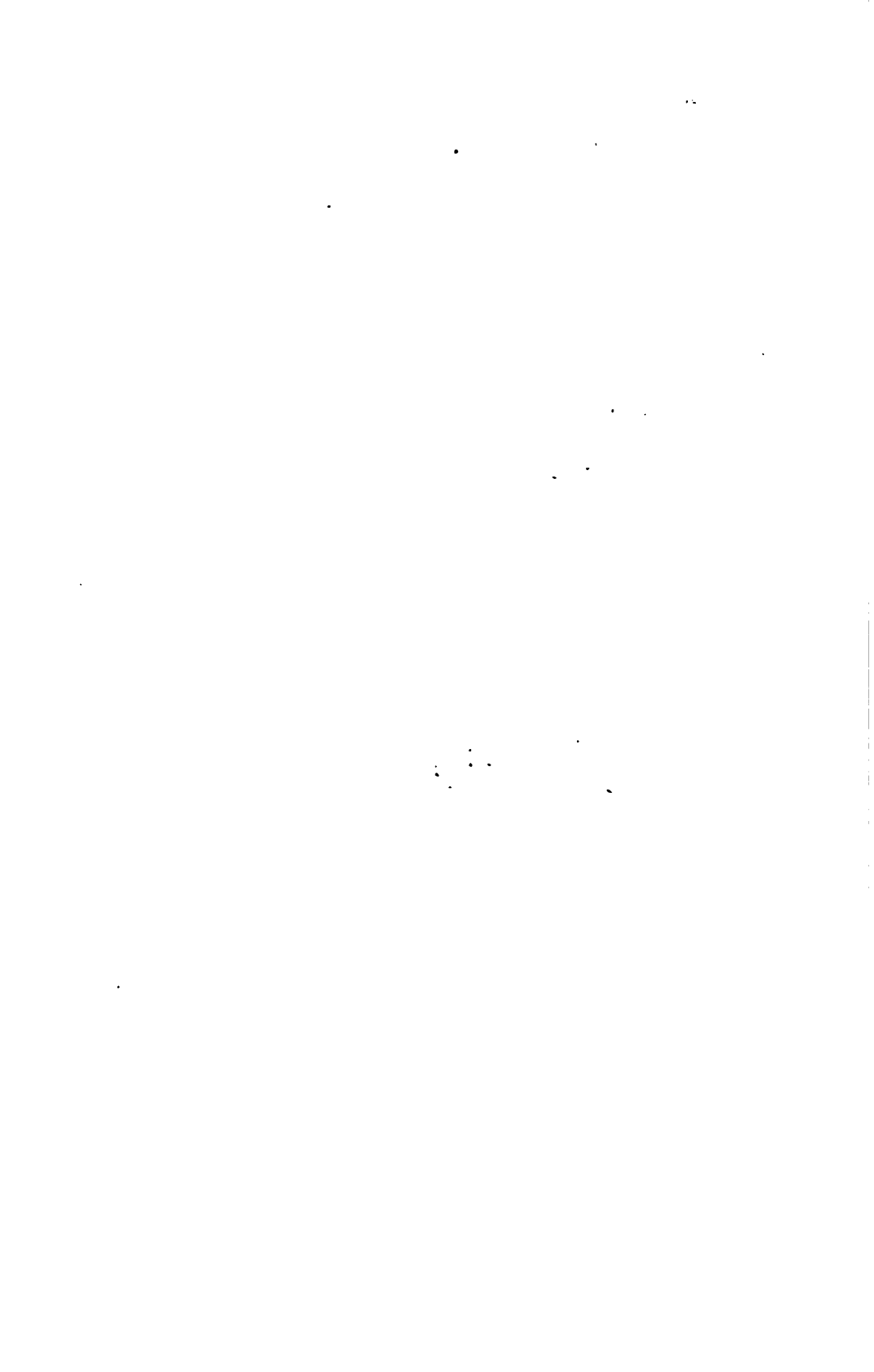
*Reports of the*

CHIEF, BUREAU OF INSULAR AFFAIRS  
PHILIPPINE COMMISSION  
GOVERNOR OF PORTO RICO



WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1913





JUL 14 1938

## ARRANGEMENT OF THE ANNUAL REPORTS OF THE WAR DEPARTMENT FOR THE YEAR ENDED JUNE 30, 1912.

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- Volume I.....**Secretary of War.  
Chief of Staff.  
The Adjutant General.  
Inspector General.  
Judge Advocate General.  
Quartermaster General.  
Commissary General.  
Surgeon General.  
Paymaster General.  
Chief of Ordnance.  
Chief Signal Officer.  
Chief of Coast Artillery.
- Volume II.....**Chief of Engineers (without Appendixes).
- Volume III.....**Division and Department Commanders:  
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Department of the East.  
Department of the Gulf.  
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Department of the Missouri.  
Department of Texas.  
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- Volume IV.....**Chief of Bureau of Insular Affairs.  
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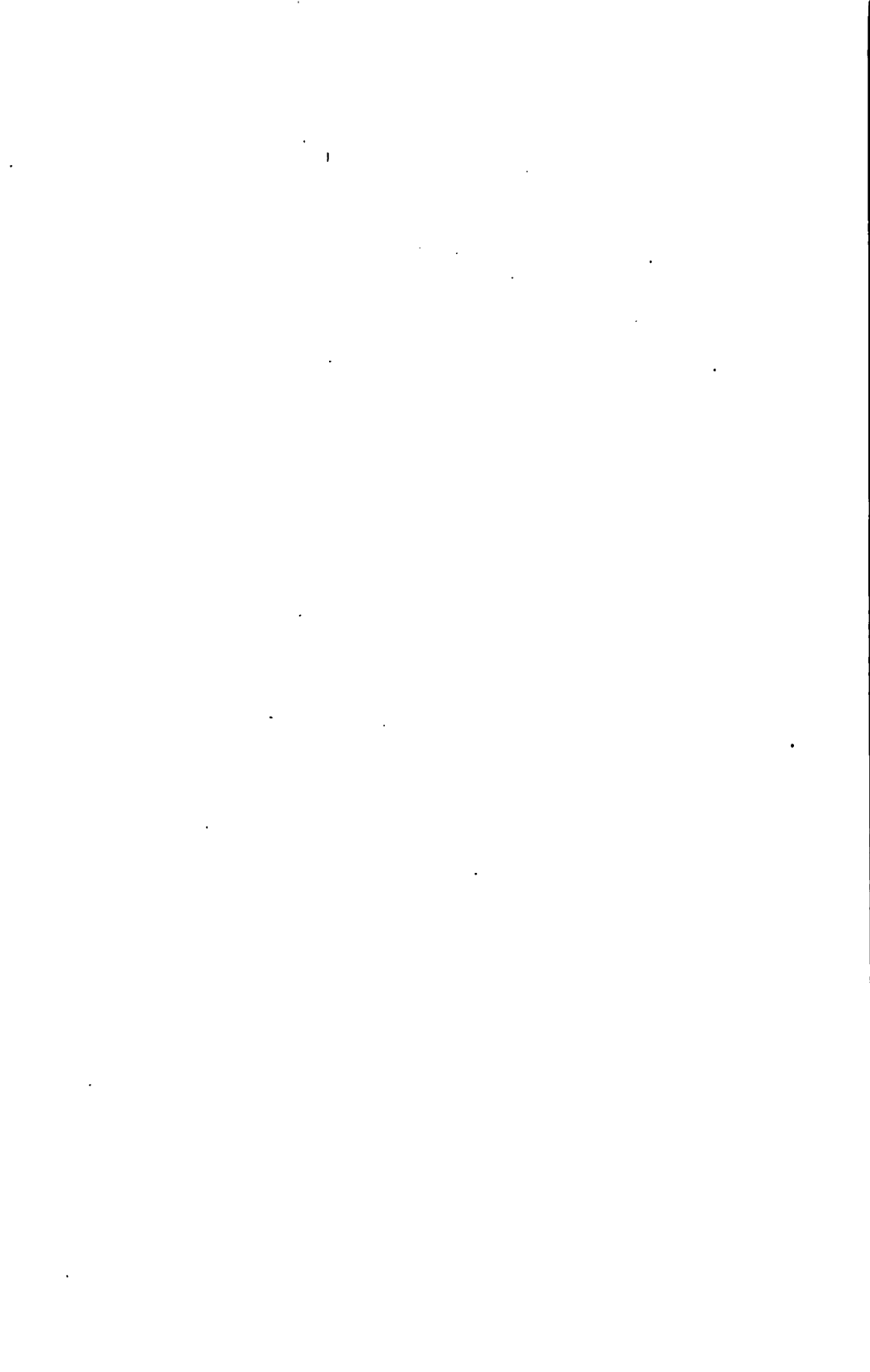


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**R E P O R T**  
**OF THE**  
**CHIEF OF THE BUREAU OF INSULAR AFFAIRS**  
**TO THE**  
**SECRETARY OF WAR.**

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WAR DEPARTMENT,  
BUREAU OF INSULAR AFFAIRS,  
*Washington, December 19, 1912.*

**SIR:** I have the honor to submit the following report of the Bureau of Insular Affairs for the past year:

**PHILIPPINE ISLANDS.**

**LEGISLATION ENACTED BY THE SIXTY-SECOND CONGRESS, SECOND  
SESSION.**

**PHILIPPINE CITIZENSHIP.**

In accordance with the recommendation repeated for several years by the Philippine Commission and this bureau, and supported by the Secretary of War, Congress by the act of March 23, 1912, amended section 4 of the organic act of the Philippines, defining Philippine citizenship, so as to give the insular legislature authority to extend by law Philippine citizenship to certain Filipinos excluded by the terms of the organic act and to admit as citizens of the Philippines such other persons residing in the islands as could become citizens of the United States were they residents therein. This was the only legislation affecting the Philippines enacted during the last session of Congress.

**PENDING AND NEEDED LEGISLATION.**

Various bills affecting the Philippines were introduced or considered during the last session of Congress without reaching the stage of completed legislation. A number of these were in support of recommendations made by the Philippine Commission, this bureau, and the Secretary of War. Others were introduced without suggestion from those connected with the executive direction of insular affairs, and, in some instances, in opposition to the recommendations.

There are, in the view of this bureau, but few Philippine matters now demanding immediate legislative action by Congress, but some of these few are of especial importance.

#### INCREASE OF LIMIT OF BONDED INDEBTEDNESS FOR PUBLIC WORKS.

The extension of this limit, now fixed at \$5,000,000, has been repeatedly urged, and a detailed statement has been submitted to Congress showing the expenditure of the proceeds of the outstanding bonds as well as the expenditure of relatively large amounts for public works from the ordinary revenues of the islands. The current revenues, however, are not sufficient to warrant continued expenditure of the amounts required for needed improvements, while the amounts already expended have been obtained in part by reducing the needed allotments for school and other important purposes. The Philippine Commission for the last three years has requested authority to issue bonds for public works to an additional amount of \$15,000,000, not more than two and a half millions to be expended in any one year. This is a modest request in view of the pressing needs of the islands and in comparison with the amounts expended from time to time by many of our States and some of our municipalities. The Philippines have an area of some 115,000 square miles of scattered territory and a population in 1903 of 7,635,426, while Pennsylvania, having in 1910 a population of 7,665,111 inhabiting 49,000 square miles of compact territory, is contemplating a debt of \$50,000,000 solely for the improvement of its public highways.

The bonded indebtedness of the Philippine government at present is limited to two issues, the friar-land bonds, \$7,000,000, and the public works permanent improvement bonds, \$5,000,000, while municipal bonds have been issued only for the city of Manila, \$4,000,000, and the city of Cebu, \$125,000. The following table shows, comparatively, the per capita debts of various countries, many of which must be considered less prepared than the Philippines to support the burdens shown:

Countries.	Per capita debt.	Per capita interest.	Countries.	Per capita debt.	Per capita interest.
New Zealand.....	\$363.05	\$11.58	Haiti.....	\$24.05	\$1.28
Uruguay.....	124.81	7.67	Turkey.....	22.95	3.21
Argentina.....	91.50	4.38	Santo Domingo.....	19.97	1.78
Chile.....	47.10	1.93	Mexico.....	14.50	.87
Servia.....	44.88	2.23	Venezuela.....	14.42	.72
Egypt.....	40.95	1.56	United States.....	10.88	.23
Brazil.....	38.60	1.36	Ceylon.....	6.54	.34
Cuba.....	28.76	2.01	Colombia.....	5.26	.30
Japan.....	26.00	1.45	Philippine Islands.....	1.50	.06

The immediate necessities in the way of public works in the Philippines which can not at this time be well met from the current revenues include new wharves at Manila and the improvement of the Pasig

River, which, in effect, is a part of the port of Manila, and a new arrastre plant for freight handling at the Manila customhouse, \$1,000,000; similar improvements at Iloilo and Cebu, \$400,000; improvement of the port of San Fernando, La Union, \$400,000; improvements of other ports, \$400,000; irrigation projects, \$1,000,000, and a capitol building. This building is designed to be erected in sections as the needs of the insular government grow. The present offices are far too crowded and the present demands warrant expenditure for this purpose of \$1,000,000.

Other permanent improvements needed include new customhouses at Manila and Iloilo, school and university buildings in Manila, provincial hospitals, bridges, etc. It is estimated that at the rate of constructing roads now possible from current revenues it will require 25 years to complete the roads at present necessary. The growing industries of the islands make a constantly increasing demand for good roads, and when it is remembered that the Americans found such roads practically unknown away from the immediate vicinity of the larger cities, the importance of this work becomes manifest. Densely populated areas elsewhere in civilized countries have had the benefit of much effort in this way on the part of preceding generations; but in the Philippines the lack of roads threatens to become an increasing handicap to Filipino progress.

The preparedness of the Philippine government to assume the responsibility of an addition to its bonded indebtedness is apparent from an analysis of its receipts and expenditures:

	1911	1912
Revenues.....	\$12,722,780.22	\$15,023,336.06
Expenditures:		
Fixed charges.....	1,608,399.01	1,389,931.47
Public works from revenues.....	2,899,877.16	4,338,963.86
Administrative expenses, including aid to provinces.....	9,179,583.38	10,791,013.61
Total expenditures.....	13,688,559.55	15,519,908.93
Excess expenses over revenues for 1911.....	965,799.33	
Excess revenues over expenses for 1912.....		103,927.76

<sup>1</sup> This amount includes \$1,698,513.82, transferred from the gold-standard fund to the general funds in the treasury, omitting which the revenue for 1912 was \$13,925,322.87, or an increase of \$1,202,562.65 over 1911.

Even the cost of carrying \$15,000,000 additional bonded indebtedness at 4 per cent interest, with a 3 per cent sinking-fund provision, would be less than one-third of the amount from the current revenues devoted in 1912 to public works.

The outstanding friar-land bonds amount to \$7,000,000, but these are by law to be redeemed largely through the sale of the land purchased. The only remaining liability of importance to the Philippine government lies in its guaranty of interest on certain railway bonds, which is so carefully protected as to make it no more than a temporary burden.

During the last session the Senate passed a bill—S. 4762—which is now with the House Committee on Ways and Means, increasing the limit of bonds for public works to \$15,000,000. This would mean authority for the issue of bonds for \$10,000,000 in addition to the bonds now outstanding. The Committee on Insular Affairs, however, had reported on March 4 a bill—H. R. 20049—providing for only \$5,000,000 additional. It is hoped that the Senate bill may be favorably considered by the House or the limit fixed by the House bill may be increased, so that at least the limit of \$15,000,000 may be authorized without the necessity of again appealing to Congress.

#### SILVER-CERTIFICATE RESERVE.

Section 8 of the "Act to establish a standard of value and to provide for a currency system in the Philippine Islands," approved March 2, 1903, authorizes the use of silver certificates on the deposit of coined silver pesos in the Philippine treasury, and provides that the coin so deposited shall be retained in the treasury and held for the payment of silver certificates on demand and used for no other purpose.

It has been found in the Philippines, as elsewhere, that the certificates are far more convenient as a circulating medium than the coin, and as a result there is at present in circulation ₱20,000,000 of the silver coinage and ₱24,000,000 of the silver certificates. The requirement that only coined silver shall be held in the reserve resulted in an inconvenience, which was partly remedied by the act of June 23, 1906, which provided that the treasurer of the Philippine Islands, with the approval of the Governor General, might substitute for such silver pesos on deposit gold coin of the United States, which was not to exceed 60 per cent of the total amount of certificates outstanding. This had the twofold effect: First, of permitting an increase in the currency without awaiting the coinage of additional pesos, and to this extent was desirable; and, second, of materially increasing the intrinsic value of the reserve. The latter was incidental and of no particular value, in that the reserve had been sufficient from the first.

Experience has now demonstrated the advantage of two modifications of the certificate-reserve requirement: First, the great convenience and added safety of keeping part of this reserve in the United States rather than in the Philippine Islands; second, the Philippine government should be permitted to profit by the safe and conservative use of a part of this reserve. It is believed that the government should be authorized to invest 60 per cent of such reserve in safe securities or to deposit on proper security this amount at interest in banks in the United States or the Philippine Islands.

A bill which would make effective this recommendation was introduced in the Senate at the last session (S. 4756), and the early consideration of this bill is recommended.

**TO RESTORE LEGISLATIVE CONTROL OVER ALLOTMENT OF INTERNAL-REVENUE COLLECTIONS TO THE PHILIPPINE LEGISLATURE.**

At the time the Philippine tariff act of 1909 was under consideration only 40 per cent of the internal revenue collected in the islands accrued to the general government thereof. To meet a possible reduction in income from customs duties under the new law section 5 of the customs tariff act of August 5, 1909, gave to the Philippine Commission authority to allot the internal revenues without awaiting action of the Legislature. Pursuant to this authority, the Philippine Commission passed an act, No. 1964, under which 60 per cent of the internal-revenue collections subject to apportionment was allotted to the insular government, with the proviso that the amount set aside for provinces and municipalities should not exceed the amount so allotted in the fiscal year 1909. Following the establishment of free trade between the United States and the islands the internal-revenue collections showed marked gains, and under the reapportionment the provinces and municipalities received annually only the same amount as in the fiscal year 1909, while the increase accrued to the insular government. The act of August 5, 1909, provides:

*And provided further, That, until action by the Philippine Legislature, approved by Congress, internal revenue paid into the insular treasury as hereinbefore provided shall be allotted and paid out by the Philippine Commission.*

On February 1, 1912, the Philippine Legislature enacted as Act No. 2127 a bill which had been introduced in the Philippine Assembly. The effect of this act, when approved by Congress, will be to return to the Philippine Legislature jurisdiction of the apportionment of internal-revenue taxes and to modify the existing rule of apportionment so as to require that annual allotments to provinces and municipalities shall be 28 per cent of the total, but not less than the allotments of 1909, whereas the present law allots to them 40 per cent of the total but not more than was allotted in 1909. This will give to the provinces and municipalities participation in future increases.

That this act might receive the affirmative approval of Congress necessary to make it effective, the President, by his message of April 30, 1912, transmitted it to the Senate and House of Representatives, neither of which, it appears, took any action thereon during the last session further than to refer it to committees. While it is therefore in the nature of pending legislation, it is not the subject of any bill or resolution so far introduced. Since congressional approval of this action of the Philippine Legislature means merely to return to that body jurisdiction properly pertaining thereto, delay in approving

the measure must operate to some extent in derogation of the powers of the insular legislature and produce an effect contrary to the purpose of Congress as expressed in the law quoted. It is therefore recommended that a bill or resolution to accomplish the purpose desired be introduced and its passage urged during the present session of Congress.

INCREASE OF AMOUNT OF LAND THAT MAY BE HOMESTEADED AND AMENDMENT OF LAW GOVERNING MINING CLAIMS.

In the last report of this bureau legislation was recommended for—

(1) Increase of amount of land that may be homesteaded from 16 hectares (39.5 acres) to 50 hectares (123.5 acres), and the amount of land that may be sold to an individual from 16 hectares to 500 hectares (1,235.5 acres), and authority to give free title to those who have occupied lands, within the limit of 50 hectares, for five years and cultivated it for three years prior to filing petition for title. There are some 60,000,000 acres of public lands in the Philippines, 20,000,000 of which are classed as agricultural lands. One immediate need of the islands is agricultural development. A wise regard for the future dictates restraint in the allotment of land, but the future plainly is not to be benefited by a total neglect of the present, and experience has shown that the existing authority is insufficient to encourage settlement and cultivation to the extent essential to present material progress. The proposed limit is well within the bounds of safety and is fully warranted by the amount of public lands awaiting disposition. This does not affect the amount of public lands that may now be sold to a corporation or association, though it is believed that even this limit, 1,024 hectares (2,530.3 acres), might wisely be reasonably increased.

(2) Amendment of existing law to admit the filing of more than one mining claim on the same vein or lode by the same person, corporation, or association; to facilitate the taking up of claims for placer mining or mines under water; and to extend the time for development of coal claims from one year to three years. There are undoubtedly mineral possibilities in the Philippines, how great is unknown and probably undiscoverable under the present restrictions. In nearly all cases such traces as have been found are in wild and inaccessible parts, and the expenses attached to transportation, even if found in paying quantities, is too great in the general case to warrant mining operations on any important scale under the limitations now imposed. As in the case of other public lands, it is believed that possible present prosperity should not altogether be sacrificed to the future.

The recommendation for the necessary legislation is renewed.

PUBLIC ORDER.

The condition of peace and good order prevailing throughout the Archipelago at the date of the last annual report has continued generally throughout the year just passed. The disarmament of the

Moros was practically completed with but little serious disorder, and another temptation to rapine and bloodshed among these fanatical peoples thereby removed.

### RAILROADS.

#### THE MANILA RAILROAD CO.

Progress in the northern (unguaranteed) and southern (guaranteed) lines of Luzon continued. At the end of the fiscal year the lines in operation, under construction, and projected were as follows:

	Northern lines.	Southern lines.	Total.
	<i>Kilometers.</i>	<i>Kilometers.</i>	<i>Kilometers.</i>
Lines in full operation.....	477.202	227.558	704.760
Lines in construction operation.....		14.579	14.579
Lines under construction.....	30.990	110.208	141.198
Lines projected.....	58.614	387.591	446.205
	566.806	739.936	1,306.742

*Northern lines.*—The extension from Dagupan to San Fernando is in operation to Aringay North, and the line from Paniqui to Tayug as far as Rosales. Construction is proceeding on both lines. Additional shop facilities are being added.

*Southern lines.*—The following branch lines have been put in operation for their entire length:

Manila to Cavite and Naic.  
Luta to Batangas and Bauan.  
Calamba to Magdalena and Pagsanjan.

The main line south is in operation from Manila to Lusacan, with work progressing toward Lucena. Active work has begun on the connecting link south of Lucena, but no final plans have been submitted to the government.

Revised plans for final location of the Benguet line extending from Aringay to Baguio have been presented to the government for approval, and construction is proceeding from both ends of the line.

#### THE PHILIPPINE RAILWAY CO.

Construction work has been completed on both the Cebu and Panay divisions, and no further construction is contemplated for the present. The lines in operation are:

Trackage.	Cebu.	Panay.	Total.
Length of main line.....kilometers..	95.60	116.40	212.00
Spurs.....do....	3.28	2.38	5.66
Sidings.....do....	14.72	18.82	33.54
Total trackage.....do....	113.55	137.55	251.10



The other railways in operation are:

Manila Electric Railroad & Light Co.....	kilometers.....	47.4
Manila Suburban Railways Co.....	do.....	9.9
Tarlac Railway Co. (not now in operation).....	do.....	20.6
Daet Tramway Co.....	do.....	7.2
Insular Coal Co.....	do.....	12.0
Total of all completed lines.....		1,034.9

#### POSTAL SAVINGS BANKS.

The last year witnessed a continued growth of the postal savings bank system both in number of offices and depositors, the latter increasing 24 per cent. That nearly two-thirds of the depositors are under 23 years of age shows the potential influence of these banks upon the younger generation of Filipinos.

*Number of open accounts on June 30, 1912.*

	Total number of accounts.	Per cent of total.
Americans.....	4,720	12.19
Filipinos.....	29,565	82.55
Europeans.....	896	2.48
Asiatics.....	580	1.64
Societies.....	51	.14
Total.....	35,802	100.00

#### *Comparative statement, 1911-1912.*

	Net deposits.	Number of open accounts.	Total banks in operation.
June 30, 1912.....	P2,386,086.43	35,802	437
June 30, 1911.....	2,090,474.49	29,804	414
Gain during year.....	295,611.93	6,998	23

#### PHILIPPINE CURRENCY.

The Philippine coinage system has continued to afford a convenient currency, its parity with gold being assured by a gold standard fund to which all seigniorage and earnings from the sale of New York exchange, as well as interest received from depositaries, are credited. During the last few years the earnings grew so large that it was deemed wise to limit the fund to 35 per cent of the outstanding circulation, exclusive of silver certificates protected by a gold reserve. On December 8, 1911, the Philippine Legislature accordingly passed an act (No. 2083) authorizing this limitation and releasing (to June 30, 1912) from the gold standard fund a total of \$1,698,513.82. The transfer of this amount to the general funds of the insular treasury was of great assistance in meeting the general

needs of the government, but particularly in the construction of public works, as elsewhere shown in this report.

Moreover, the complete public confidence in the carefully protected Philippine coinage system has long made it evident that a reasonable proportion of the gold-standard fund could properly and usefully be used in some manner other than depositing it at interest with the various banks designated for that purpose. The Legislature accordingly provided, in the same act, that not more than one-half of the fund might be loaned for not exceeding 10 years to municipalities and provinces for much needed public works at 3 per cent per annum. There was also included a further provision that not exceeding one-half of the amount thus loanable might be loaned for a period not to exceed 30 months to the Manila Railroad Co. at 5 per cent interest to aid in expediting the completion of important sections of railroad on certain specified lines.

The effect of this provision for loans to municipalities and provinces is broader than appears at first sight. Heretofore in the absence of sufficient demand for secured deposits in the islands to enable the government to place more than a minor part on deposit in Manila, the greater part of the fund had been necessarily deposited in banks of the United States which furnished ample security. At the same time, owing to the active demand for money at higher interest rates, there was no established market in the islands for provincial or municipal bonds bearing low rates of interest, although the current revenues of these local governmental bodies are unequal to the needs for additional schoolhouses, markets, water systems, and other public works. This act has made available for this purpose an initial fund of about four and a half million dollars. As showing the awakening of public spirit throughout the islands, it is interesting to note that 250 municipalities have filed applications for loans for the construction of markets, besides numerous applications for loans for waterworks, etc.

Acting within its exclusive general legislative jurisdiction over all that part of the Philippine Islands inhabited by Moros or other non-Christian tribes, the Philippine Commission has enacted the necessary legislation to make a proportion of the funds available to them.

The provision relating to loans to the railroad is important as, under the stringent regulations requiring the completion of each 20-mile continuous section before the corresponding amount of bonds can be sold, it has been difficult to finance the simultaneous construction of sections on the numerous lines or branches in such a way as to expedite their completion. The security for these loans is unquestioned and the quickening of railway construction already evidenced shows the soundness of the action taken.

The law limits the amount of coinage to ₱75,000,000, of which there has been coined a total of ₱52,205,545.07, which gives a net per capita circulation of Philippine currency of ₱6.53, or \$3.27, if we estimate the present population at 8,000,000. This does not include United States currency and coin in circulation in the islands, the aggregate of which is unknown, the insular treasury holding \$2,651,683.41 on June 30, 1912. This small circulation, taken in connection with the present state of trade, indicates that the time is probably not distant when steps to increase the volume of currency may become necessary.

#### SILVER COINAGE.

During the fiscal year ₱278,000 in Philippine silver coin and Pfs. 42,703.40 Spanish-Filipino coin were shipped to the San Francisco Mint for recoinage under the act of Congress approved June 23, 1906. The total Philippine silver coin of the first issue shipped for recoinage under this act to June 30, 1912, was ₱29,776,500. New coin was shipped from the San Francisco Mint to Manila during the year to the amount of ₱706,433.80, of which ₱60,000 were copper and the remainder silver. The total shipments of silver coin of the present standard to June 30, 1912, and the minor coinage on hand that date were:

Pesos.....	₱42,700,517.00
50 centavos.....	2,719,401.50
20 centavos.....	1,630,341.40
10 centavos.....	1,110,172.80
5 centavos.....	499,250.00
1 centavo.....	521,076.37
½ centavo.....	52,042.00
	<hr/>
	49,232,801.07

#### PAPER CURRENCY.

During the fiscal year there were prepared by the Bureau of Engraving and Printing of the United States Treasury Department and sent to Manila, ₱1,000,000 in ₱5 notes, ₱3,000,000 in ₱10 notes, ₱4,000,000 in ₱20 notes, and ₱3,000,000 in ₱500 notes, a total of ₱11,000,000.

#### DEPOSITARIES IN THE UNITED STATES.

Since my last report, the United States Trust Co., of Washington, D. C., having acquired the Washington business of the International Banking Corporation, was designated as a Philippine depository in lieu of the latter institution. The Continental Trust Co., of Washington, D. C., also was designated a depository, making at present 13 depositories for the Philippine government in the United

States. The deposits of the treasurer of the Philippine Islands with these depositaries on June 30, 1912, amounted to \$11,446,373.34, as against \$12,908,977.19 on June 30, 1911.

#### BONDED INDEBTEDNESS.

The bonded indebtedness of the Philippine government, including the bonded indebtedness of the cities of Manila and Cebu, has not changed since the last report. It is as follows:

	Amount.	Redeem- able.	Due.
Land-purchase bonds, 4 per cent.....	\$7,000,000	1914	1934
Public works and improvement bonds, 4 per cent.....	2,500,000	1915	1935
Do.....	1,000,000	1916	1936
Do.....	1,500,000	1919	1939
City of Manila sewer and waterworks bonds, 4 per cent.....	1,000,000	1915	1935
Do.....	2,000,000	1917	1937
Do.....	1,000,000	1918	1938
City of Cebu sewer and waterworks bonds, 4 per cent.....	125,000	1921	1941
Total.....	16,125,000		

#### PURCHASE OF SUPPLIES.

During the fiscal year the bureau received from the Philippine government 1,195 purchase requisitions by mail and 87 requisitions by cable, as against 1,013 and 101, respectively, for the previous year. There was disbursed by the bureau for supplies, bought for the Philippines, and for expense of purchase, shipment, etc., \$1,373,-689.69, as against \$904,799.66 for the preceding year.

Requisitions for supplies received by the bureau from the Philippines, as well as from Porto Rico and the general receiver of Dominican customs, are executed through the agency of the bureau maintained in New York City.

#### DISBURSEMENTS.

Disbursements of Philippine revenues by the disbursing agent of the bureau for the fiscal year were \$2,654,983.07, and the total disbursements from May 20, 1901, the date of the inauguration of the disbursing office, to June 30, 1912, amount to \$41,920,320.75.

#### COMMERCIAL STATISTICS.

In the belief that detailed information concerning foreign trade would prove of more value than a condensed statement even at more frequent intervals, the Quarterly Summary of Commerce of the Philippine Islands has been made a semiannual publication and, under the title of "Foreign Commerce of the Philippine Islands,"

gives trade data in much fuller detail. While the commercial movement will be presented at intervals of six months, it is proposed in this amplified form, and by the addition of supplementary tabulations, to present something more than a trade summary in the future and to make the publication conform more nearly to the scope of the statistical annuals of other countries.

The increased commercial activity of the Philippines, inaugurated by free trade with the United States, continued throughout the year, and the aggregate value of imports and exports for the first time exceeded a hundred million dollars.

There was an unprecedented increase in exports, and the total of \$50,319,836 exceeded by more than 25 per cent the previous high values of 1910 and 1911. Imports amounted to \$54,549,980, but as the increase of \$4,716,258 was largely for rice and in the nature of emergency importations to meet conditions created by the disastrous drought of the year the favorable showing of the figures is subject to corresponding discount.

#### IMPORTS.

Imports of merchandise for the fiscal years 1899 to 1912, inclusive, were as follows:

Fiscal years.	From—		Total.
	United States.	Other countries.	
1899 <sup>1</sup> .....	\$1,150,613	\$11,962,397	\$13,113,010
1900 .....	1,657,701	18,943,735	20,601,436
1901 .....	2,855,685	27,423,721	30,279,406
1902 .....	4,035,243	28,106,599	32,141,842
1903 .....	3,944,068	29,027,784	32,971,852
1904 .....	4,633,216	28,587,545	33,220,761
1905 .....	5,761,498	25,114,852	30,876,350
1906 .....	4,333,693	21,465,373	25,799,266
1907 .....	5,155,359	23,630,496	28,785,855
1908 .....	5,079,487	25,838,870	30,918,357
1909 .....	4,691,770	23,100,627	27,792,397
1910 .....	10,775,301	26,292,329	37,067,630
1911 <sup>2</sup> .....	19,483,658	30,350,064	49,833,722
1912 <sup>2</sup> .....	20,604,155	33,945,825	54,549,980

<sup>1</sup> Aug. 20, 1898, to June 30, 1899.

<sup>2</sup> Figures for 1911 and 1912 include Government supplies and railway free entries.

Imports of foodstuffs amounted to about twenty million dollars, or five million more than in 1911, but while rice and wheat flour were leading items of increase in this important branch of trade, a striking feature was larger values in most classes of foodstuffs. Reduced rice production, which was general throughout the East and resulted in famine prices in the opening months of the year, was also experienced in the Philippines, and required active governmental meas-

ures there as well as in other countries to cope with the situation. The Philippine government became a large purchaser of foreign rice in order to control the rapid advance in price, while elsewhere it was found necessary to place restrictions upon exports. With the marketing of the new crop the situation was somewhat relieved, but prices continued high, while importations continued in increasing volume down to the end of the year, resulting in a value of \$10,569,949—the largest sum ever paid for rice except in 1904—while the average price exceeds all previous records during American occupation. Prices were favorable for the substitution of flour to meet the rice shortage, and American flour found a materially larger market in the Philippines.

Imports of beef cattle as well as draft cattle fell below the figures of 1911, and stringent quarantine restrictions, with a view to checking the spread of disease, influenced the trade movement. The practical prohibition of Australian cattle, which was a feature of the previous year's figures, was modified to the extent of providing for local slaughter under isolated conditions, and a regular trade developed from this quarter. China-coast cattle continued to be excluded, although the Hongkong authorities made overtures toward the end of the year for the restoration of this large and profitable trade of the past; while French Indo-China, as heretofore, furnished the bulk of imports of both carabao and other cattle, although this source was also in a measure affected by quarantine regulations. Australian frozen beef profited by these conditions, and was imported in considerably larger quantities, while the demand for American canned beef surpassed by far all previous records.

In the fiber and textile trade, which ranks second to foodstuffs in importance, silk maintained the general upward movement of recent years, and the minor values under miscellaneous vegetable fibers and wool were without change, but the unprecedented ten million dollar total in the cotton trade of 1911 was not repeated, and this decline, confined generally to the piece goods trade, was the most important reduction in the import figures for the year. Cotton textiles declined from \$7,128,605 to \$5,876,813. The six million dollar iron and steel trade was a nominal increase over the figures of 1911, while mineral oils established a new high record with a value of over a million and a half, and coal imports were materially less.

Imports from the United States were valued at \$20,604,155, against \$19,483,658 in 1911, or 38 per cent of the total against 39 per cent in that year. In the reduced purchases of cotton textiles American goods suffered less than those of other countries as a whole and comprised more than half this trade. Imports of iron and steel were over

two-thirds of American origin, and the larger mineral oil trade of the year was almost wholly from the United States.

#### EXPORTS.

Exports of merchandise for the fiscal years 1899 to 1912, inclusive, were as follows:

Fiscal years.	To—		Total.
	United States.	Other countries.	
1899 <sup>1</sup> .....	\$3,540,894	\$8,826,018	\$12,366,912
1900.....	3,522,160	16,228,908	19,751,068
1901.....	2,572,021	20,642,927	23,214,948
1902.....	7,691,743	16,235,936	23,927,679
1903.....	13,863,059	19,266,840	33,119,899
1904.....	11,102,775	19,147,852	30,250,627
1905.....	15,668,026	16,664,589	32,332,615
1906.....	11,579,411	20,337,723	31,917,134
1907.....	12,079,204	21,634,153	33,713,357
1908.....	10,323,233	22,493,334	32,816,567
1909.....	10,215,331	20,778,232	30,993,563
1910.....	18,741,771	21,122,398	39,864,169
1911.....	16,716,956	23,061,673	39,778,629
1912.....	21,517,777	28,802,069	50,319,836

<sup>1</sup> Aug. 20, 1898, to June 30, 1899.

The increase of ten and a half million dollars in exports was chiefly due to greatly increased quantities of copra marketed at increased prices, a larger output of sugar, and an improved cigar trade. Copra prices further advanced and established another high record in the year's average, while the quantity exported increased from 113,775 to 166,667 long tons. Of the four great export staples of the islands, copra was the latest to develop into prominence, and it has been characterized by rapidly growing importance in the past few years. With a value of \$16,514,749 in 1912, it took for the first time foremost place in Philippine exports, with an increase of \$6,615,292 for the year.

Manila hemp, which heretofore has held front rank, continued to suffer from the low prices prevailing in recent years, and exports declined from 163,033 to 151,554 long tons, though there was a marked improvement in prices in the latter part of the year, and the reduced quantity yielded a slightly greater return to the industry than the larger output of 1911.

The average export price of sugar was a little higher than in the previous year, while the quantity increased from 147,016 to 183,077 long tons, valued at \$10,400,575. The large remainder of the old crop of 1910-11 was marketed too early to obtain the full benefit of high prices created by depleted stocks and the shortage in the European beet crop during the closing months of the calendar year 1911.

The new crop, which was seriously affected by the drought, moved slowly under declining prices and little demand, and large quantities were reported held in the warehouses of Iloilo at the close of the year. This is attributed to the lack of interest taken by the American market in the Philippine product, even though duty free, when brought into competition with a record-breaking output and abundant supply of near-by, high-grade Cuban sugar. The year has witnessed the installation of the first modern mills, capable of producing 96° centrifugals, and the recent market experience serves to show the importance of raising the standard of Philippine sugar if it is to get the full benefit of free trade.

Exports of manufactured tobacco did not differ materially from the figures of 1911 in either quantity or value, but greatly increased activity was shown in the cigar trade, due to the steady recovery in the American demand from the serious depression following heavy shipments of the first year of free trade. This recovery was manifest in the closing months of the previous year, and during 1912 grew from a monthly trade of about two and a half million to seven and a half million, with shipments during the year aggregating sixty-eight million, against twenty-three million in 1911 and eighty-four million in 1910. The cigar trade of other countries remained close to the million-dollar average of former years, and the average price was less than half that of the American trade.

Exports to the United States amounted to \$21,517,777, an increase of nearly \$5,000,000 over 1911. Sugar was the leading item, with a value of \$9,142,833. Manila hemp, which heretofore has held first place in American purchases, amounted to \$7,751,489. Shipments of copra to the United States doubled in value and amounted to \$2,339,144, but were a relatively small part of this growing trade, which has from the first found its best market in the great vegetable-oil manufacturing center of Marseille. Leaf tobacco shipments were made to only a nominal value, but cigar exports to the United States exceeded in value those to all other countries combined. The third year of free trade shows that 72,000,000 cigars and 159,000 tons of sugar found an American market, leaving a considerable margin still for trade development up to the limit of 150,000,000 cigars and 300,000 tons of sugar given entry into the United States.

#### INSULAR RECEIPTS AND DISBURSEMENTS.

The Philippine Government continued self-supporting during the past year, as it has been since its organization. The following comparative statement of insular receipts and disbursements of the Philippine Islands, exclusive of all items of a refundable character,



covers the fiscal years ended June 30, 1911, and June 30, 1912, expressed in United States currency:

	Fiscal year 1911.	Fiscal year 1912.
<b>CREDITS.</b>		
Balances from prior years.....	\$6,394,798.56	\$6,239,312.93
Revenues:		
Customs.....	8,272,397.78	8,908,123.64
Internal.....	4,134,876.06	4,729,710.67
Miscellaneous.....	315,496.28	287,488.56
Surplus—gold-standard fund.....		1,696,512.82
Total revenues.....	12,722,769.22	15,623,836.69
Other receipts.....	84,887.62	
Supplies.....	2,755,431.06	
Total credits.....	21,927,872.48	23,863,149.62
<b>DEBITS.</b>		
Expenditures:		
Bureaus and offices.....	8,318,051.56	9,638,369.80
Miscellaneous.....	718,232.32	381,494.15
Fixed charges.....	1,609,399.01	1,399,981.47
Aid to provinces.....	143,299.50	144,655.00
Public works.....	2,899,577.16	3,338,968.86
Supplies transferred and dropped.....	13,688,559.55	14,804,418.27
Surplus:		15,519,908.93
Cash.....	3,933,338.69	3,793,632.00
Supplies.....	2,755,431.06	2,687,344.08
Other.....	<sup>1</sup> 1,660,543.16	1,892,264.66
Total debits.....	21,927,872.48	23,863,149.62

<sup>1</sup> This item is \$3,700 less than shown in our report for 1911 being the result of an adjustment of an error in the surplus account for that year.

#### PHILIPPINE LEGISLATURE.

The last regular session of the second Philippine Legislature, which is composed of the Philippine Commission as the upper house and the Philippine Assembly, whose members are chosen by popular vote, as the lower, continued with the preceding sessions to confirm the wisdom of the grant of a representative legislative assembly to the Filipinos, but continued also to reveal the importance of the checks imposed against ill-advised legislation on the one hand and against attempt to block necessary legislation on the other. Generally the relations between the two houses were harmonious and considerable important constructive legislation was enacted. Nevertheless it should be recorded that some proposed legislation plainly unwise was prevented from becoming law only by the refusal of the Philippine Commission to concur, while the failure to pass a general appropriation bill showed the wisdom of the provision in the organic act automatically continuing the preceding appropriations in this emergency.

As constituted now, the Philippine Legislature is filling an important place in training the Filipino leaders in what Mr. McKinley well called "the science of self-government," and in showing how far legis-

lative control may be extended without serious injury to the peoples of the islands.

#### EDUCATION IN THE PHILIPPINES.

In 1909 the Philippine Commission reported that:

But one-fourth of the children of school age are being instructed. There was some agitation on the part of the Assembly for the passage of a law for compulsory attendance upon school. \* \* \* It was not accepted by the Commission on the ground that \* \* \* it would be premature to pass any law for compulsory attendance at schools of children whom we were without funds to educate.

In case Congress is disposed to help the Philippine Islands in the matter of education and push the work faster than the insular treasury can stand, we shall be glad to see a considerable annual appropriation made for education from the National Treasury. An additional amount of \$2,000,000 annually could be spent with great advantage to the islands.

In 1910 and again in 1911 the Commission recommended such an appropriation by Congress, but this bureau has never before directly invited attention to this matter, through the belief that favorable action by Congress in this respect is at present unlikely, as well as because it is not fully convinced of the advisability of the action recommended. The serious nature of the struggle in the Philippines to extend education among the masses of the Filipinos and the tremendous drain on the insular revenues that must follow before wide accomplishment can be obtained is appreciated, as well, of course, as the desirability of spreading education as rapidly as possible. Nevertheless, congressional assistance of this kind would break the record heretofore maintained by the Philippine government of supporting itself without financial assistance from the home Government, and it might furthermore lead to dependence upon this source of revenue for the spread of education and result in complications of a more or less serious character if later this assistance were denied. It is estimated that probably one-third of the children of school age are now being afforded opportunities to acquire at least an elementary education; and while this leaves a vast number still to be reached, many of whom must pass their whole lives without the benefits of education, it is of no less importance that progress along other lines contribute simultaneously with the advance in learning to raising the standards of living in the Philippines. Improved sanitary conditions, new means of communication that will open up regions impracticable to reach now, and other public works are not only essential on their own account but will permit educational facilities to be supplied where it is impossible to furnish them now except at unwarranted expense.

While, therefore, not concurring in this suggestion of the Philippine Commission, the suggestion itself becomes an additional argu-

ment for the increased limit on bonded indebtedness for public works elsewhere urged. With a just share of the public works a charge, as it should be, against the future, it is believed that the proper demands of the present in the extension of education can and should be met by the Philippine government itself.

Philippine standards of living are only to be raised and Philippine progress generally to be encouraged by industrial development of the Filipino peoples. The Philippine government has well recognized this, and a notable feature of its educational program is the opportunities it affords for vocational instruction. There is now an enrollment of about 450,000 Filipino students in industrial courses, and the opportunities offered generally for this important instruction compare favorably with opportunities for such education in the United States.

#### ENGLISH—A COMMON LANGUAGE.

Another feature of prime importance in the educational progress of the Filipinos is the rapid spread of the English language.

The extension of English has not been due to a mere American pride in our own tongue, but to the facts that no other language could offer any hope of becoming the common language of the islands, nor afford such practical benefits even could it be substituted therefor. It is well understood that under existing conditions neither Spanish nor any of the various native languages or dialects could hope to become a common means of communication even within the Philippines, and much less between the Philippines and other countries, while English is not merely now well advanced throughout the Archipelago but is an ordinary commercial language of much of the East. At least three million Filipinos have now had some instruction in this tongue, and to-day more natives speak and write some English than speak and write any other language. English has long been the official language in the Philippines outside of the courts, and under existing law will become the official language of the courts on January 1, 1913. Some misunderstanding has resulted from this fact, and another attempt was made during the last Philippine Legislature to postpone the date when this law should become effective. Fortunately it failed. Any further postponement must retard the spread of English, while its adoption as the "official" language will work no hardship on those lacking knowledge of it, since the use of any language is necessarily permitted where English is not known. The hope of developing any real idea of nationality among the Filipino peoples in the future lies more probably in the spread of a common language than in any other one thing, and English offers the only hope to be raised in this respect.

## PORTO RICO.

## GENERAL CONDITIONS.

For the third successive year exceptionally notable progress, commercial and industrial, is reported from Porto Rico. In his annual report for the year ending June 30, 1912, Gov. Colton states:

The advance made during the year has been more general, marked, and important than that of any previous 12 months in the history of the island, either before or since American occupation.

Eighty-seven per cent of the external commerce of the island for the year was with the United States, its purchases of American goods being exceeded by only 11 countries of the world. The output of all agricultural products was substantially increased, methods of farming have been markedly improved, and the acreage of crops extended, while the conditions for continued improvement remain favorable.

Sugar continued in the place of first importance as an article of export, the quantity reaching 367,000 tons during the year, five times that in 1901.

The number of cigars manufactured was 14 times greater than 11 years before, 170,000,000 being shipped to the United States, and less than one-fourth of the tobacco crop being shipped in the leaf.

The shipments of fruit from the island were valued at \$2,377,762, and cooperative efforts to improve methods of packing and marketing have produced marked results.

The long period of depression in the production of coffee following the destructive hurricane of 1899 seems to be passing, as the crop of 1912 was the largest ever known in Porto Rico. The value of the coffee sold abroad during the year was \$6,754,913. This industry is being extended throughout the mountains of the island, the soil and climate of which are especially adapted to the successful culture of the highest grade of coffee. Heretofore it has been practically unknown to American consumers, but is now being introduced by the Commercial Agency of the Government of Porto Rico, 569 Fifth Avenue, New York City. The insular government has taken an active interest in this matter, believing that consumers need only to know that one of the best coffees produced is grown on American soil to bring about a steady demand for this product.

The external commerce of the island increased approximately \$14,000,000 over 1911, or 17 per cent. The United States purchased Porto Rican products to the value of \$42,873,401, while Porto Rico imports from the home markets reached \$37,424,545.

*Imports and exports.*

Fiscal years.	Imports.	Exports.	Total.
1901.....	\$8,915,136	\$5,583,967	\$17,502,103
1902.....	13,209,610	12,433,366	25,643,566
1903.....	14,449,286	15,089,079	29,538,365
1904.....	15,169,029	16,265,903	31,434,932
1905.....	16,536,259	18,709,565	35,245,824
1906.....	21,827,665	23,257,530	45,085,195
1907.....	29,267,172	26,996,300	56,263,472
1908.....	25,825,605	30,644,490	56,470,155
1909.....	26,544,226	30,391,225	56,935,551
1910.....	30,634,355	31,960,119	62,594,474
1911.....	38,786,997	39,918,367	78,705,364
1912.....	42,926,473	45,705,413	88,631,886

*Exports—Sugar, cigars, and coffee.*

Fiscal years.	Sugar.	Cigars.	Coffee.
1901.....	\$4,715,611	\$306,115	\$1,678,765
1902.....	5,890,302	1,549,235	3,195,662
1903.....	7,470,122	1,783,705	3,970,574
1904.....	8,690,914	1,460,406	3,903,257
1905.....	11,925,304	2,152,051	2,141,009
1906.....	14,184,667	3,074,226	3,481,102
1907.....	14,770,382	4,241,410	4,693,004
1908.....	13,090,504	3,414,410	4,304,600
1909.....	19,432,446	4,383,803	3,715,749
1910.....	23,545,922	4,480,030	5,669,602
1911.....	24,479,346	5,355,223	4,992,779
1912.....	31,554,063	5,060,711	6,754,913

*Value of fruit exports.*

Fiscal years.	Oranges.	Pine-apples.	Canned pine-apples.	Coconuts.	Grape-fruit.	Other fruits.	Total.
1901.....	\$84,475	( )	( )	\$6,334	( )	\$16,992	\$108,801
1902.....	51,364	( )	( )	12,720	( )	9,896	73,982
1903.....	230,821	( )	( )	326	( )	61,956	293,103
1904.....	352,646	( )	( )	( )	( )	81,211	433,860
1905.....	125,422	( )	( )	( )	( )	130,478	255,900
1906.....	295,533	\$27,826	\$42,186	129,793	7,420	502,858	783,942
1907.....	469,312	64,831	63,519	174,957	\$7,596	3,737	783,942
1908.....	630,720	172,779	98,203	206,704	44,535	11,320	1,164,261
1909.....	401,912	442,780	117,830	204,468	76,310	18,154	1,261,484
1910.....	582,716	555,044	106,587	218,870	162,749	9,851	1,635,817
1911.....	703,909	641,221	149,744	258,168	309,698	11,128	2,073,908
1912.....	584,414	684,774	258,671	308,883	525,048	15,972	2,377,762

<sup>1</sup>Shipments included under "Other fruits."

The assessed value of property in Porto Rico increased 9 per cent, reaching a total of \$178,275,000, which is practically double the assessed value of 1905.

The total net revenue receipts of the insular government—\$6,665,-348.55—were the largest of any year in its history, and notwithstanding larger disbursements required by the extensions of the public service, the available cash balance in its treasury increased nearly 50 per cent. At the end of the year there remained uncollected only six mills of each dollar of taxes assessed. On June 30, 1912, the total bonded indebtedness of Porto Rico, less sinking-fund accumulations,

was \$4,139,760.40, or \$3.70 per capita and 2.5 per cent of the assessed valuation of property.

A comparative statement of all receipts and disbursements of Porto Rico for the fiscal years 1911 and 1912, expressed in United States currency, follows:

Revenues.	Fiscal year 1911.	Fiscal year 1912.
Customs.....	\$1,065,998.95	\$1,180,592.90
Internal.....	2,571,450.02	2,778,231.32
Miscellaneous.....	240,296.87	410,220.78
Total revenues.....	3,886,745.84	4,369,045.00
Other receipts:		
Repayment of loans to municipalities.....	79,659.81	74,974.82
Repayment of loans to school boards.....	38,943.41	35,098.12
Repayments to appropriations and transfers.....	324,054.70	966,966.53
Total receipts.....	4,429,403.76	5,436,123.47
Expenditures:		
Legislative.....	60,596.60	58,673.37
Executive.....	3,137,017.42	4,022,807.95
Judicial.....	443,366.36	461,383.91
Miscellaneous.....	153,268.01	127,687.61
Total expenditures.....	3,794,248.39	4,670,552.84
Other disbursements:		
Loans to municipalities.....	19,200.00	32,700.00
Loans to school boards.....	17,385.86	204.60
Repayments to appropriations and transfers.....	95,591.31	152,122.20
Total disbursements.....	3,926,425.56	4,855,689.64

#### EDUCATION.

In 12 years of American administration the number of pupils enrolled in the public schools has increased from 20,000 to 160,657. In these years more than \$11,000,000 has been expended upon the insular educational system, while instead of only 1 building erected for school purposes, as was the case prior to 1899, there are now 1,168 such buildings. Nevertheless, while the system has been expanded as rapidly as possible, not half of the Porto Rican children of school age can be cared for with the present classroom accommodations and force of teachers.

#### INSULAR LEGISLATION.

The Porto Rican Legislative Assembly legislatively made possible the institution of a vastly improved sanitary service, and so amended the election laws as to insure the secrecy of the ballot, to require that delegates elected be residents or taxpayers within the districts from which chosen, and to provide minority representation in the House of Delegates, as well as to require a new registration of voters. A bureau of labor was also established, with authority to investigate controversies and exercise its good offices for the maintenance of satisfactory relations between employers and employees.

The Sixth Legislative Assembly convened January 8, 1912, and as some matters of importance had not been disposed of within the

60-day limit, a special session was immediately called, the Legislature adjourning finally March 14. Eighty-five laws, which were duly reported to Congress by the Governor, were enacted.

#### HEALTH AND SANITATION.

Maj. Robert E. Noble, Medical Corps of the Army, who had been engaged in the work of exterminating mosquitoes in the Canal Zone, went to Porto Rico in August, 1911, and spent six months instructing officials of the sanitation service in similar work. The result of Maj. Noble's work has been most beneficial. The prevention of typhoid fever and tuberculosis received increased attention and the campaign against anemia was continued throughout the year.

About the middle of June last bubonic plague appeared in an outlying district of San Juan. The disease was promptly discovered and positively identified four days later, when stringent measures were adopted to prevent its spread, and on the 19th its presence frankly proclaimed. The Medical Department of the Army and the United States Public Health and Marine-Hospital Service rendered important aid to the local sanitation service in the campaign for its eradication. Though a total of 30 cases and 11 deaths were reported to June 24, only sporadic cases have appeared since the close of the fiscal year, while the last known case was reported September 11.

#### PUBLIC WORKS.

The irrigation project for the benefit of some 35,000 acres of rich land on the south side of the island has progressed sufficiently to warrant the prediction that it will be completed by the end of 1913. The last year showed also much activity in municipal improvement work and continued progress in road work. At the end of the year there were 1,069 kilometers of macadamized roads under maintenance, while 33 important municipal improvements were either under construction or projected.

Forty-four franchises were granted during the year, including authority for intermunicipal telephone service, which, with the present Government telephone and telegraph lines, should make every point in the island accessible by wire before the end of the present year, and authority for the municipality of Ponce to erect a much-needed pier, at a cost of some \$300,000.

The Legislative Assembly of Porto Rico has authorized a \$500,000 bond issue for water-front improvements at San Juan. It is of particular importance, in this connection, that the dredging of the harbor of San Juan, the survey of which has already been authorized, should accompany the shore improvements, and recommendation to Congress accordingly is urged.

**PURCHASES AND DISBURSEMENTS.**

The bureau received from Porto Rico 471 mail and 90 cable requisitions for supplies, which were filled through its New York purchasing office, and disbursed for supplies purchased and expenses of shipment \$525,407.95 of Porto Rican funds.

**FEDERAL LEGISLATION.**

Referring to the legislation now pending before Congress respecting Porto Rico, Gov. Colton states in his annual report:

All of this legislation now before Congress is of importance to the welfare of the island. Especially do the people of Porto Rico so consider the citizenship bill. They have waited for more than 10 years to be admitted to American citizenship and it seemed to them during the last session of Congress that their hopes were about to be realized. It is a concession that, while entailing no new obligation or responsibility upon the people of the United States, would be of inestimable value to its recipients. It is therefore earnestly recommended that the enactment of the citizenship bill now pending in the Senate of the United States be urged at the next session of the present Congress.

*Citizenship.*—It is the practically universal testimony of everyone familiar with conditions in Porto Rico that the subject of the citizenship of Porto Ricans is the underlying cause of whatever political and social unrest there is in the island. The grant of American citizenship to those Porto Ricans desiring it has been repeatedly recommended by this bureau, successive Secretaries of War, and successive Presidents. It has been promised in the platforms of both political parties, and a bill for this purpose has once passed the House of Representatives. It is very much to be hoped that this grant may be legislatively authorized during the current session of Congress.

*Sanitation.*—While by the action of the Legislative Assembly of Porto Rico in providing an efficient and nonpartisan insular sanitary service has made Federal legislation in this direction of less importance, it is still believed that this bureau should be raised to the dignity of a department of the insular government and that the head of the department should be a member of the Executive Council of Porto Rico.

*Department of Agriculture and Labor.*—Similarly while the insular legislature has provided for a bureau of labor, it is still believed, in view of the importance of agriculture to the island and the number of people that must always be included there in the classification of laborers, that this bureau should properly become a department, with the head thereof a member of the executive council.

*United States district court.*—Among other pending legislation desirable for Porto Rico is a bill providing that a justice of the



Supreme Court of Porto Rico may be designated by the Governor to act as temporary judge of the United States District Court for Porto Rico, or as a special judge thereof, during the absence of the judge of said court or his disqualification to sit in any case or cases before that court. The early enactment of this bill will help to avoid the delay, inconvenience, and expense which results now during the absence or disqualification of the one authorized.

*Municipal judges.*—The recommendation for Federal legislation to provide for the appointment, in lieu of election, of all municipal judges, together with their secretaries and marshals, is renewed.

*Exchange of properties.*—The transfer of certain property of the United States in Porto Rico for other parcels owned by the insular government was recommended in 1909 by the Secretary of War, and during the third session of the Sixty-first Congress the Senate passed a bill authorizing such transfer. This was not acted upon by the House, and the Senate again passed it in the form of an amendment to the sundry civil appropriation bill, which amendment was lost in conference. The Senate passed the measure for the third time on August 22, 1912, and it is hoped that favorable action may be taken by the House during the present session. The Legislature of Porto Rico has enacted the legislation requisite on the part of that Government to make the exchange.

#### DOMINICAN CUSTOMS RECEIVERSHIP.

The fifth year of the operation of the receivership under the convention of 1907 ended July 31, 1912. I regret to record, however, that the record for peace and stability maintained in the Dominican Republic during the former years of the convention and under the two preceding years of the *modus vivendi* was broken during the last year and, following the assassination of President Cáceres on November 19, 1911, a condition of revolution and political and social confusion resulted, which grew worse rather than better throughout the year. In the interests of peace and good order a commission, of which the undersigned was one member, has recently visited and spent several weeks in the island under the direction of the Department of State. This report, covering only the period for the receivership fiscal year ending July 31, 1912, can not properly include the latest developments, which have recently resulted in the resignation of the President of the Republic and the choice of a temporary successor, further than to afford opportunity for the expression of the hope that, through the friendly offices of this country and the changes already effected and promised, political and business stability may soon be restored.

Notwithstanding the disturbed conditions of the last year, there was no decline in trade, but, on the other hand, a decided increase in

the volume of business transacted, and the convention continued to prove itself an efficient agency in the rehabilitation of the Republic's finances so long as it is followed in letter and spirit. The customs collections for the year amounted to \$3,645,974.79, surpassing all previous records and showing an advance over the preceding year of \$212,235.87, while the total was practically double the customs revenue of the year preceding the advent of the receivership.

The aggregate foreign trade of the Republic for the year amounted in full to \$17,945,208, an increase of \$837,894 over the preceding year. Of the total imports the United States supplied 60 per cent. Germany, the nearest competitor, supplied 12.68 per cent. The third year under the present tariff law has continued to show its efficiency as a revenue producer without the imposition of inequitable burdens.

A comparative statement of the customs service in the Dominican Republic under the receivership follows:

## Statement, by fiscal years, of the customs service, Dominican Republic.

	Under modus viviendi Apr. 1, 1905, to July 31, 1907.	Under convention of Feb. 8, 1907. <sup>1</sup>					Total
		Aug. 1, 1907, to July 31, 1908.	Aug. 1, 1908, to July 31, 1909.	Aug. 1, 1909, to July 31, 1910.	Aug. 1, 1910, to July 31, 1911.	Aug. 1, 1911, to July 31, 1912.	
DEBITS.							
Expenditures:							
Salaries and expenses, all ports.....	\$183,938.00	\$83,071.13	\$82,196.36	\$85,820.61	\$91,828.10	\$94,142.13	\$600,991.23
Salaries, office comptroller and general receiver.....	83,560.76	44,494.70	53,955.68	51,475.40	52,341.54	52,070.82	337,886.90
Interest and exchange.....	19,155.67	12,185.71	10,831.17	9,566.25	9,868.05	10,605.69	72,213.14
Operation of revenue-cutter service.....	114,662.89	29,125.69	33,261.25	29,532.18	35,668.08	30,926.58	273,161.17
Customs and frontier guard expenses.....	102,797.09	42,095.75					144,892.84
Payments:							
Dominican Republic.....	2,897,100.81	1,408,137.61	1,846,942.00	1,408,527.60	2,022,000.00	1,946,200.00	11,545,908.02
Fiscal agency account.....	3,145,764.32	1,663,977.03	1,139,118.10	1,265,000.00	1,285,820.90	1,494,092.24	9,636,772.59
Indemnities.....	11,426.85	655.15		5,000.00			17,082.00
Railroad construction.....	143,557.98	30,937.75					174,495.73
Other disbursements:							
Refunds.....	16,382.81	6,896.40	5,043.50	5,225.31	13,219.43	21,624.31	68,361.76
Refundable collections refunded.....	29,536.58	14,155.28	13,145.02	13,091.85	14,597.06	15,523.76	100,049.55
Concession benefits.....	103,967.13	41,938.08	19,765.59	6,302.68			171,973.48
All other disbursements.....	10,919.39						10,919.39
Balances on hand July 31, 1912:							
Balance due Dominican Republic.....						3,390.90	3,390.90
Unremitted balances in hands of deputy receivers.....						124,913.92	124,913.92
Building fund.....						40,500.00	40,500.00
Total.....	6,845,769.78	3,377,640.28	3,204,258.67	2,879,541.88	3,535,323.76	3,793,990.35	23,636,524.72
CREDITS.							
Collections:							
Gross customs receipts.....	6,815,756.49	3,454,955.41	3,345,712.67	2,838,374.32	3,419,141.86	3,630,451.03	23,629,991.78
Other receipts, personal fees refundable.....	29,536.58	14,155.28	13,677.04	13,101.85	14,597.06	15,523.76	100,049.57
Miscellaneous receipts.....	51.33			3,018.89	1,548.49	1,422.66	6,041.37
Total.....	6,845,344.40	3,469,110.69	3,359,390.71	2,879,993.06	3,435,287.41	3,647,397.45	23,636,524.72

<sup>1</sup> Effective Aug. 1, 1907.

**CIVIL OFFICERS IN THE INSULAR POSSESSIONS.**

Recommendations have been made in the annual reports of this bureau for several years that action by Congress be sought to provide for the retirement, after 10 or more years of satisfactory service, of certain classes of American civil officers of the Philippine government. It grows, and must continue to grow, more difficult to find qualified Americans who, under the conditions, feel that they can sacrifice an important part of their lives in the insular service unless some reasonable assurance of a livelihood, after they are compelled to leave the Tropics and return to their own country, is given. It has been estimated that expenditures under the plan suggested would probably never exceed \$100,000 annually, and would be a charge against Philippine revenues, since it is the Philippines that would derive the benefits of this encouragement to efficiency on the part of Americans occupying the higher offices of the government. The recommendation heretofore made is renewed.

**BOARD OF VISITORS FOR THE INSULAR POSSESSIONS.**

The suggestion made in the last annual report of this bureau for legislative provision for boards of visitors to the insular possessions after each short session of Congress is believed worth emphasizing again. Such biennial inspections of the insular possessions by representatives of the executive and legislative branches of the Government could hardly fail, it is thought, to result beneficially.

**LAW OFFICER.**

Mr. Felix Frankfurter has continued as law officer of the bureau throughout the year, and the problems affecting the insular possessions and their relations to the United States which constantly arise in new form for solution, as well as the preparation for and conduct of cases where the insular governments may be a party coming before the courts of the United States, have fully occupied his time and made the office one of continued importance to the bureau. The recommendation made in the last annual report for provision for a law clerk in his office is, in the interest of economy and increased efficiency, renewed.

**PERSONNEL.**

Gen. Clarence R. Edwards, the chief of this bureau from its organization, has been recommissioned as brigadier general in the line of the Army.

As chief of this bureau he was so loyal to his superiors—the several Secretaries of War—and so prone to attribute the success of the work of the bureau to his subordinates that only those persons inti-

mately acquainted with the working of the bureau understood how absolutely the organization and work of the bureau were due to Gen. Edwards himself.

His devotion to the bureau and his hard work in carrying out successfully every task assigned to it, to the serious injury of health, at one time endangering his life, have been fully appreciated by his subordinates.

Gen. Edwards leaves the bureau manned by a most loyal force of subordinates and with the best of relations between it and the governments over the seas represented by it here.

Maj. George H. Shelton, having completed a tour of duty in the bureau, was relieved on November 30 and assigned to duty with his regiment.

Maj. Shelton, who was then a member of the General Staff of the Army, was in 1908, because of special fitness, detailed for duty with this bureau. He had served both in the Philippines and in Porto Rico and had a thorough knowledge of conditions as we found them in the several islands and of the changes under American direction.

Maj. Shelton gave the uniformly excellent service here which is expected of him in every duty to which assigned.

The vacancy created by the loss of Gen. Edwards was filled by the appointment of Col. McIntyre, the senior assistant, and the vacancy thus created has been filled by the detail of Col. Charles C. Walcutt, jr., to duty in the bureau.

The following, taken from the last annual report of the bureau, is a fair portrayal of the work and conditions of its personnel:

The officers and clerks of the bureau, almost without exception, have performed the varied duties falling upon them during the year with marked fidelity and efficiency. Work of a more varied character probably falls to the lot of this bureau than any other under the Government. Within the range of its activities, touching every governmental problem connected with the administrative control of 9,000,000 people, it has to do with every branch of government—executive, legislative, and judicial. Upon its clerical force there necessarily falls a mass of work of wide variety and great detail, and comparatively little of a purely routine nature. Only exceptional intelligence and industry on the part of the individual members of this force have enabled the bureau fully to meet the obligations falling upon it in its dual capacity of agent, on the one hand, of the insular governments for the transaction of their business in the United States, and, on the other, of the Federal Government in its relations with the islands. The steadily widening activities of the insular possessions, moreover, is reflected in the increased volume of work coming into the bureau.

The scope of the bureau's work makes it an attractive place to the young man of intelligence and ambition seeking to enter the Government service, but, unfortunately, the limited personnel authorized and the low salaries offered even in the higher places do not afford opportunities for promotion suited to the class of employees essential for success in its work and desirous not only of entering but remaining in the service. The bureau has suffered seriously in

this respect from transfers and resignations of exceptionally desirable men, who have been forced to seek other positions where the opportunities are greater and for which their experience in the bureau has helped especially to fit them.

In this way the services of many clerks are lost just at the time their training has rendered them of real value to the bureau. Men lost in this way can not be replaced by others equally qualified, and the bureau's only recourse is to train others anew, and frequently to no better end than to see them similarly transferred to other fields of usefulness. The records have been traced in a number of instances of men who have been transferred or resigned from the bureau in the past, and almost invariably, where traceable, the record discloses that the change, whatever it has cost the bureau in efficiency, has been profitable to the individual. More than a hundred employees—nearly double the present entire clerical force—have thus left the office of their own accord within the last 10 years.

The salaries throughout have been markedly lower than is commensurate with the character of the work. The highest salary in the bureau is \$2,000, which is allowed to but one clerk. The appropriation provides for no chiefs of divisions, but experience has shown an organization of the office by divisions essential, and the records of the clerks detailed as chiefs of the various divisions show an unselfish and praiseworthy loyalty and practical results in the way of quality and quantity of work, I believe, rarely equalled. It would be but partial justice to provide salaries of \$2,000 for each of the chiefs of the six main divisions of the bureau.

During the past few years transfers for the purpose of improving their condition have made regrettable inroads upon the clerks of the \$1,200 and \$1,000 classes—men trained to their work and of much greater value to the bureau—but for whom no opportunities for promotion could be found on account of the limited number of clerks authorized at \$1,400 and \$1,600. To relieve this condition there should be a material increase in the number of places in the bureau drawing salaries at the rates last named.

The estimates of the bureau submitted for the fiscal year 1914 provided for an increase of \$500 in the salary of the chief clerk, five chiefs of division at \$2,000 per annum, with a corresponding reduction in the number of \$1,800 positions, an increase from 3 to 8 in the \$1,600 positions, and an increase from 10 to 11 of \$1,400 positions, with a decrease from 19 to 13 of the \$1,200 grade and the abolition of three \$1,000 clerical positions and one \$660 laborer. Under this proposed readjustment the total amount appropriated would be only \$40 more than the total appropriation for the present fiscal year.

As indicated above, the inability of the bureau to retain competent and efficient clerks has been a serious handicap to it, and the estimates were submitted with a view to creating greater permanence in the regular force, to equalize the number of positions in the several grades (there being but three \$1,600 positions at present), to furnish an incentive in providing greater possibilities for promotion to the clerks of the lower grades, and to give immediate promotion to several deserving clerks.

With a permanent force it is possible for the bureau to perform its work in a more expeditious and efficient manner than it can with a larger force which is constantly shifting. Experience has demonstrated, however, that it is impossible to keep efficient and desirable clerks with the small number of higher salaried positions.

My personal gratitude is due the entire personnel of the bureau for its loyalty, industry, and efficiency, and I renew the recommendation made in the last annual report of this bureau that some adequate provision be made for the retirement of clerks who, after long and faithful service, through age or illness have become incapacitated for further efficient work.

Respectfully submitted.

FRANK MCINTYRE,  
*Brigadier General, United States Army,*  
*Chief of Bureau.*

THE SECRETARY OF WAR.

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# REPORT OF THE PHILIPPINE COMMISSION.

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# ANNUAL REPORT OF THE PHILIPPINE COMMISSION TO THE SECRETARY OF WAR.

MANILA, *October 8, 1912.*

SIR: The Philippine Commission has the honor to submit its thirteenth annual report, covering the fiscal year ending June 30, 1912.

## LEGISLATION.

### EXCLUSIVE LEGISLATIVE JURISDICTION OF THE COMMISSION.

Acting within its exclusive legislative jurisdiction over all that part of the Philippine Islands inhabited by Moros or other non-Christian tribes, the Commission enacted during the fiscal year 36 laws, of which the following are the more important:

An act prohibiting slavery, involuntary servitude, peonage, and the sale or purchase of human beings in the Mountain Province and the Provinces of Nueva Vizcaya and Agusan, and providing punishment therefor.

An act establishing and defining the legal rate of interest, and declaring the effect of usury upon contracts, and for other purposes, in the Moro Province, the Mountain Province, and the Provinces of Agusan and Nueva Vizcaya.

An act providing certain special proceedings for the settlement and adjudication of land titles in the Moro Province, the Mountain Province, the Province of Agusan, and the Province of Nueva Vizcaya.

An act amending act numbered two thousand and sixty-seven, entitled "An act providing for the investment of a portion of the accretions to the gold-standard fund in loans to the provinces and municipalities in the territory inhabited by Moros or other non-Christian tribes, for certain purposes, in securities authorized for the investment of funds of the Postal Savings Bank, and in interest-bearing bonds to assist in the construction of sugar centrals, and for other purposes," so as to fix the amount of the gold-standard fund created under act numbered nine hundred and thirty-eight, authorize the deposit of the amount of the excess so fixed to the credit of the general fund of the treasury, and authorize the investment of a portion of the said gold-standard fund.

An act authorizing the establishment of quarantines and regulating the movement of cattle within the territory under the exclusive legislative jurisdiction of the Philippine Commission.

An act authorizing the pasturing of horses, cattle, carabao, sheep, and goats on public lands in the Mountain Province, the Moro Province, Nueva Vizcaya, and Agusan.

An act appropriating funds for the construction of wireless telegraph stations in that part of the Philippine Islands inhabited by Moros or other non-Christian tribes, provided a like amount shall be appropriated by the Congress of the United States and made available for use in connection with the money herein appropriated.

### AS A CHAMBER OF THE PHILIPPINE LEGISLATURE.

The second regular session of the Second Philippine Legislature convened on October 16, 1911, and continued in session until and including February 1, 1912. A special session was called by proclamation of the Governor General for the days February 2 to 6, 1912, inclusive.

These were the only sessions of the Legislature held during the fiscal year.

During these sessions there originated in the Commission as a chamber of the Philippine Legislature 69 bills, of which 52 were passed by the Commission and sent to the Assembly. During the same period there were considered by the Commission 181 bills which originated in the Assembly. The total number of bills finally agreed upon by both Houses and enacted into law was 86, of which 17 originated in the Commission and 69 in the Assembly. Of these laws the following are the more important:

An act to fix the amount of the gold-standard fund, created under act numbered nine hundred and thirty-eight, authorizing the deposit of the excess of the amount so fixed to the credit of the general fund of the treasury, and authorizing the investment of a portion of the said gold-standard fund.

An act to provide for the collection and apportionment between the insular, provincial and municipal governments of taxes paid by the grantees of franchises, their lessees, successors or assigns, on the gross earnings or receipts from the business covered by the law granting the franchise or any amendment thereof.

An act relating to contracts of personal service and advances thereunder, and providing punishment for certain offenses connected therewith.

An act amending act numbered eight hundred and seventeen by changing the method of appointment of locust boards and by defining the relation of the bureau of agriculture to the locust boards, and appropriating a sum of money for the purposes of said act, and for other purposes.

An act providing for the confinement of insane persons in Government hospitals or other institutions for the insane, and for the appointment of a board of physicians to inquire into the mental condition of persons alleged to be insane, when the evidence presented is not satisfactory to the court, or when there exists a reasonable doubt as to the condition of any patient confined in a hospital for the insane.

An act authorizing Mauro Prieto and associates to establish a mortgage bank under certain conditions.

An act providing for the apportionment and disposition of internal-revenue taxes collected in the Philippine Islands from July first, nineteen hundred and twelve.

An act concerning warehouse receipts.

An act to prevent the introduction into the Philippine Islands of plant diseases and epidemics.

An act to provide a system for the appropriation of public waters, and for the determining of existing rights thereto; for the public registration of all water rights; for the creation and use of water power; for investigations for and the construction, maintenance, and operation of irrigation systems by the Government of the Philippine Islands; for the repayment of money expended therefor; for the construction, maintenance, and operation of irrigation systems by private persons; for the inspection and regulation of all works pertaining to the use of water; and providing penalties for its violation; and for other purposes.

An act authorizing the granting of revocable licenses to construct and operate tramways on public roads, and for other purposes.

An act to regulate motor vehicle traffic in the Philippine Islands, to provide for the registration of motor vehicles and the licensing of operators, and to require all vehicles on highways to carry lights, and for other purposes.

An act creating a commission to secure, organize, and make an exhibit of Philippine products, manufactures, art, ethnology, and education at the Panama-Pacific International Exposition to be held at San Francisco, California, in the United States, in nineteen hundred and fifteen, making an appropriation therefor, and for other purposes.

An act to provide for the reorganization, government, and inspection of the municipal police of the municipalities or provinces and subprovinces organized under act numbered eighty-three.

The following are some of the important matters considered by the Legislature, but which failed of final passage:

An act providing certain special proceedings for the settlement and adjudication of land titles.

An act providing for the reorganization of the courts of first instance.

An act creating the bureau of land registration, and for other purposes.

An act authorizing the establishment of an Agricultural Bank under the guaranties authorized by the act of Congress of March fourth, nineteen hundred and seven.

An act defining habitual criminals and providing additional punishment for the same.

An act prohibiting slavery, involuntary servitude, peonage, and the sale or purchase of human beings in the Philippine Islands, and providing punishment therefor.

An act authorizing the Governor General to sell the real property of the Government of the Philippine Islands known as the ice plant for a sum not less than two million pesos, to give to the purchaser a good and sufficient title to said property, and for other purposes.

An act to amend sections fifty-four and one hundred and fifty-two of act numbered fourteen hundred and fifty-nine, known as the "corporation law" (regarding insurance companies).

An act regulating the organization of life insurance corporations, defining their powers, fixing the duties of directors and other officers thereof, prescribing conditions under which said corporations may transact business, prescribing rules under which foreign life insurance corporations may transact business in these islands and repealing all acts or parts of acts in conflict or inconsistent with this act, and for other purposes.

An act creating the office of shipping commissioner, defining his duties, regulating the shipment and discharge of seamen in domestic vessels and the adjudication of wage disputes in certain cases.

An act further amending section twelve of act numbered one hundred and ninety, entitled "An act providing a Code of Procedure in Civil Actions and Special Proceedings in the Philippine Islands," as amended, by providing for the continuation of the Spanish language as the official language of the courts until the first day of January, nineteen hundred and seventeen, and for other purposes.

An act changing the penalty for the crimes of falsification of documents, as defined in chapters four and five of the Penal Code of the Philippine Islands.

An act on marriage and divorce.

An act providing for the organization of agricultural colonies at uninhabited points in the Philippine Islands under the direction of the bureau of labor and appropriating funds for that purpose.

An act to authorize the creation of rural associations subsidized by the government in each of the municipalities and townships of the Philippine Islands, for the purpose of fostering rural industries and agricultural production, creating for that purpose a special fund in the insular treasury that shall be derived chiefly from customs duties on imported rice, or, in default thereof, from the gold-standard fund, or from the general fund in the insular treasury.

An act prescribing the procedure in all cases of detention or arrest of male offenders under twenty-one years and of female offenders under twenty-five years of age, as well as the form of trial and criminal proceedings against them; containing also provisions relative to the correction of minors rebellious to paternal authority and the detention or arrest of older persons.

An act making a reimbursable appropriation of one million pesos to aid in the establishment of banks in the Provinces and important municipalities of the Philippine Islands, under certain conditions and limitations, and for other purposes.

An act making appropriations for sundry expenses of the insular government for the fiscal year ending June thirtieth, nineteen hundred and thirteen, and other designated periods.

An act establishing and defining a legal rate of interest and declaring the effect of usury upon contracts.

An act making appropriations for public works.

The acts passed by the Commission and the Legislature during the fiscal year are numbered 2066 to 2187. Certified printed copies of all of these have heretofore been furnished.

The Legislature having failed to pass the appropriations for the current expenses of the government for the fiscal year 1913, section 7 of the act of Congress of July 1, 1902, became operative and the expenses necessary for the support of government are being paid in accordance with the provisions of said section.

#### COMMERCIAL DEVELOPMENT.

The year has been marked by a healthy advance in commerce throughout the islands. The value of imports and exports has amounted to ₱209,739,632, as compared with ₱179,224,702 for 1911.

an increase of 17 per cent. There has been a considerable growth in the value of domestic products exported, both in quantity and quality, yet the imports still show an excess over the exports of ₱8,460,288. Although the balance of trade is against the islands for the year, it is a large reduction from that of 1911, and if the extraordinary increase in the rice importations, amounting to ₱8,018,638, be not considered the imports and exports would be almost equal.

The increase in exports of ₱21,082,414 was largely due to copra. For the first time since American occupation copra has moved to the head of the list of exports and hemp has dropped to second position. Sugar and cigars retain about their same position. The following figures of the four principal exports in 1911 and 1912, showing the percentage of the total value of the exports, may be of interest:

*Exports of 1911 and 1912.*

	1911		1912	
	Value.	Per cent of the total value.	Value.	Per cent of the total value.
Hemp.....	₱2,282,680	40.58	₱2,567,020	22.36
Copra.....	19,798,914	24.9	33,029,498	32.8
Sugar.....	16,028,720	20.15	20,801,150	20.67
Cigars.....	3,401,424	4.27	5,320,122	5.20

While hemp fell in quantity it increased in value, showing a decrease in weight of 11,603 tons and an increase in value of ₱284,340.

The exports of sugar continue to increase, 161,783 tons valued at ₱18,285,666 having been exported as compared with 128,926 tons valued at ₱14,289,510 in 1911. Though this year shows an increase, it is entirely due to large shipments of the 1911 crop in the early part of the year and can not continue unless a better grade of sugar is offered to the markets of the world. During the last months of the fiscal year 1912 the Philippine market was stagnant, for in spite of a good crop, the sugar was practically all stored in Iloilo, and there was no demand for it. This state of affairs precipitated a crisis in our chief sugar district. The sugar-planting season had begun, the banks were unwilling to carry longer the farmers who had received advances on the sugar which was not yet sold, and refused to advance money on the coming crop until they had realized on the 1912 crop. The situation gradually became better, and at the present writing the crop has begun to move to the market. The reason for such a situation being possible is that the Philippine or "muscovado" sugar, which has but a low percentage of purity, is the last sugar that is bought by the American refineries. The Cuban, West Indian, and Louisiana crops, and the beet-root sugar are all preferred to the Philippine crop. We, therefore, have a market in America only when there is a lack of other available sugar, as occurred in the previous year. If the Filipino hacenderos desire to avail themselves of the American market and not to ruin the sugar industry in the islands, they must organize and construct, or encourage foreign capital to construct, modern sugar centrals where high-grade sugar, for which there is a practically unlimited market, can be manufactured.

The slump in the cigar trade with the United States, mentioned in the last report, seems to have ended, 71,973,000 cigars having been shipped to the United States as compared with 27,936,000 in 1911. With the cooperation of the Manila Tobacco Association, the collector of internal revenue has promulgated rules and regulations governing the shipment of cigars to America. These rules restrict the shipment of cigars so that only cigars of high-grade quality are placed on the market. The increasing demand for the Philippine cigar in the United States is the best evidence that these regulations are assisting the tobacco industry.

#### EVIDENCES OF COMMERCIAL AND FINANCIAL ACTIVITY.

The following figures are interesting as showing the increase in trade with the United States since the passage of the Payne tariff bill (1909), the increase in trade with other countries, and the increase in both business and trade during the same period:

Fiscal year.	Trade with foreign countries.	Trade with the United States.	Total trade.
1909.....	P57,772,324	P29,905,556	P117,677,880
1910.....	94,387,848	59,183,832	153,571,180
1911.....	105,959,292	73,265,410	179,224,702
1912.....	126,959,188	82,780,444	209,739,632

*Business of the Philippine Islands upon which is levied a tax of one-third of 1 per cent.*

Fiscal year.	Amount of business.
1909.....	P380,408,894
1910.....	457,610,200
1911.....	533,650,738
1912.....	574,168,706

These figures show a total increase in the three years of P189,501,874 in trade and P424,202,962 in business in the Philippine Islands. When the Payne tariff bill went into effect it was believed that there would be a marked decline in the customs receipts owing to the free American market which would tend to cut into the foreign markets, from which alone goods are received on which customs duties are paid. The contrary has proved to be the case. Customs receipts have advanced steadily the past three years, amounting to P16,572,147 in 1910, P17,357,620 in 1911, and P18,695,295 in 1912. Not only do the merchants import more and more from the free markets of the United States every year but with increasing prosperity the purchasing power of the people has become so much greater that they can afford to increase their purchases of foreign dutiable goods.

#### THE GOLD STANDARD FUND ACTS.

The advisability of a change in the gold-standard fund was mentioned in the last report of the Philippine Commission. This matter was brought to the attention of the Legislature by the message of the Governor General last October, and resulted in the passage of two acts, Nos. 2083 and 2088, which are known as the gold-standard fund acts. By Act No. 2083 the gold standard fund is fixed at a sum equal to 35 per cent of the money of the Philippine Islands in cir-



lation and available for that purpose, exclusive of the silver certificates in circulation protected by the gold reserve. It provides also that 50 per cent of the gold-standard fund thus constituted may, with the prior approval of the Governor General, be invested by the insular treasurer in loans, with interest at 3 per cent for provincial and municipal public works, for periods not exceeding 10 years, and that one-half of said 50 per cent may also, with the prior approval of the Governor General, be invested in loans, at 5 per cent interest, to the Manila Railroad Co. to assist in the construction of the lines in southern Luzon. Act No. 2088 makes similar provisions, the interest, however, on loans to the Manila Railroad Co. for lines in the Mountain Province being fixed at 4 per cent instead of 5.

By these acts ₱2,751,897.73 were at once transferred to the general fund of the treasury as cash available for appropriation and approximately ₱9,000,000 were made available for loans. Contracts were signed at once by the Governor General and the president of the Manila Railroad Co., insuring the speedy completion of the southern lines connecting Albay with Manila and the completion of the Baguio line from La Union to the capital of the subprovince of Benguet. By the end of the fiscal year ₱2,013,700 of this fund had been loaned to Provinces and municipalities and ₱200,000 to the Manila Railroad Co.

#### THE PORT OF MANILA AND THE PORT DISTRICT.

The increase of trade in the Philippine Islands during the past year has been noted in another portion of this report. If the islands are to get the full share of prosperity which the fertility of their soil and the abundance and variety of their natural resources warrant, everything must be done in the near future to make the transportation of freight to and from the islands as cheap as possible. It is of the utmost importance that the present hindrances to trade in the shape of costly delays of shipping, frequent rehandling of products, etc., be eradicated. The government, in the past, has done much to remedy these defects, not only in the port of Manila, but in the other two important ports of the islands, Cebu and Iloilo. Cebu is now unique among the island ports in having a wharf at which ocean-going vessels can tie up with railroad connection at the water's edge. If the sugar industry in the Negros and Iloilo districts is to bring to the islands the prosperity which it warrants, the port of Iloilo must be improved and modern wharfs must be placed there at which ocean-going vessels can dock and the sugar can be shipped without the necessity of lightering.

The most important problem, however, is the improvement of the port of Manila, as Manila is by far the largest export and import port in the islands, 77 per cent of the islands' trade going through it each year. On the improvement of the port, ₱11,569,677 have already been spent in the construction of breakwaters, and the dredging to the depth of 30 feet of a deep-water harbor for the world's trade. The trade of the islands, however, is increasing far beyond the facilities which the port of Manila at present provides, and in the near future it will be of vital importance to have a further area of harbor dredged so that more vessels of deep draft can anchor there.

The filled-in land known as the port district offers to the port of Manila an unequalled chance of giving to the ships of the world the best facilities in the Far East for quick and cheap transshipment of goods. Two wharfs have already been constructed by the Government and a start has been made on warehouse construction on the filled-in land. At first it was found necessary to compel ships to come to the wharfs. Within the past year, however, they have found the advantages offered so great that it is no longer a question of compelling ships to load or unload at them but a question of which ships shall have the privilege of the use of these wharfs. There is a vital necessity for the construction of more wharfs to handle the traffic. In the past year the movement of merchants toward the port district has been marked. Previous to the fiscal year 1912 but 2 blocks available for lease to the public had been taken up; 16 blocks were reserved for the military and Marine Corps and 7 blocks have been reserved for the customhouse and other government buildings. In the past year 22 blocks have been disposed of to the merchants of Manila. In the near future the Manila Railroad will have constructed its lines across the Pasig River, into the port district and onto the wharfs. The electric railroad will circle the district and provide cheap freight distribution throughout the city. With the railroad lines completed to Albay in the south and to La Union in the north, tapping the hemp districts of Albay and Ambos Camarines, the copra districts of Tayabas and La Laguna, the rice districts of the north and the sugar districts of Pampanga, produce of the islands may be moved from the place of production to the ship's sides in Manila without break of bulk, with through bill of lading and with no rehandling. This will mean a tremendous decrease in the cost of shipping which will benefit the islands and which should be followed by a large increase in production.

In connection with the improvement of the port of Manila, the interisland shipping trade should not be lost sight of and large improvements are necessary in the lower Pasig River and in the esteros throughout the city. To obtain the means of bringing about these most important improvements, authority to issue bonds will be necessary and it is hoped that Congress in its next session will authorize a further issuance of bonds for permanent improvements in the islands for these and other purposes.

#### RECOMMENDATIONS.

The commission wishes to make the following recommendations, most of which have been repeatedly urged in previous reports:

#### BONDED INDEBTEDNESS.

First. That the Philippine Legislature be empowered to authorize the issuance of \$15,000,000 worth of bonds, to be used for public works, permanent improvements, and cadastral surveys, with the provision that not more than \$2,500,000 thereof shall be sold in any one year. The argument for this recommendation may be found in the report of the Commission for the fiscal year 1911.

**SCOUTS AND CONSTABULARY.**

Second. That Congress, by appropriate legislation, authorize the consolidation of the Philippine Scouts and constabulary into a single homogeneous native force under control of the insular government, toward the maintenance of which the United States would pay a portion of the money now expended for maintenance of the scout organization.

**RAILROAD BONDS.**

Third. That Congress amend section 4 of the act of Congress approved February 6, 1905, dealing with the government guaranty of bonds issued against the construction of railroads in the Philippine Islands so that contracts of guaranty thereby authorized may be executed upon satisfactory proof of the construction of the railroad in sections of not less than 10 continuous kilometers each instead of 20 continuous miles each, as now provided.

The arguments for the following may be found in the report of the Commission for the fiscal year 1909:

**EDUCATION.**

Fourth. That if Congress is willing to assist, so as to expedite the accomplishment of our ends in the Philippine Islands, an annual appropriation of \$2,000,000 be given, to be added to the present insular appropriation for education.

**MINING LAW.**

Fifth. That the law in regard to mining be amended in order to admit the filing of more than one mining claim upon a lode by the same individual or corporation to facilitate their taking up claims for placer mines or mines under the water, and to extend the time for development of coal claims to three years.

**LAND LAW.**

Sixth. That the amount of land which may be acquired, owned, and used for agricultural purposes in the Philippine Islands by any corporation be extended to 6,000 hectares.

**HOMESTEADS.**

Seventh. That the amount of land allowed to be taken up by any one person under the homestead law be increased from 16 to 50 hectares; that the amount that individuals may purchase from the government be increased to 500 hectares; and that the amount allowed to be sold or conveyed to corporations or associations of persons be increased from 1,024 hectares to 6,000 hectares.

**LAND TITLES.**

Eighth. That provision be made for the government to give free titles under proper restrictions to people who have been in undisputed occupation of land for five years previous to the year 1912.

## CONSTRUCTION OF PUBLIC WORKS BY MUNICIPALITIES.

Ninth. That section 66 of the act of Congress of July 1, 1902, as amended, be further amended so as to increase the kinds of public works which may be undertaken by municipalities and to authorize the Philippine government by general legislation to empower municipalities to incur indebtedness for such purposes.

## QUALIFICATIONS OF ELECTORS FOR DELEGATES.

Tenth. That section 7, congressional act of July 1, 1902, be amended to provide that qualifications of electors in election of Assembly Delegates shall be the same as those now or hereafter required for municipal electors by Philippine laws, and that no person shall be eligible to election as Assembly Delegate unless he has the qualifications prescribed by law for municipal officers, is a resident of his election district, owes allegiance to the United States, and is 25 years of age.

Information regarding many matters of general interest, such as have been discussed in previous reports of the Commission, will be found in the reports to the Commission of the Governor General and the several secretaries of departments.

Respectfully submitted.

NEWTON W. GILBERT,  
*Acting President.*

DEAN C. WORCESTER,  
JOSÉ R. DE LUZURIAGA,  
GREGORIO ARANETA,  
JUAN SUMULONG,  
FRANK A. BRANAGAN,  
*Members.*

To the honorable the SECRETARY OF WAR,  
Washington, D. C.



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**REPORT OF THE GOVERNOR GENERAL.**

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## REPORT OF THE GOVERNOR GENERAL.

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MANILA, *October 1, 1912.*

GENTLEMEN: I have the honor to present to the Philippine Commission the following report of the Governor General. This report is for the fiscal year 1912, which terminated June 30, 1912, except as otherwise stated.

On March 15, 1912, Gov. Gen. W. Cameron Forbes, having been granted leave for six months, departed for the United States and the undersigned assumed the duties of this office as Acting Governor General on that date. Therefore, during more than eight months of the period covered by this report Gov. Gen. Forbes personally performed the duties of the office, and as Acting Governor General I have generally continued his policies.

### SECOND PHILIPPINE LEGISLATURE.

The second regular session of the Second Legislature was held at Manila beginning October 16, 1911, and ending February 1, 1912. A special session was convened at Manila pursuant to the proclamation by the Governor General on February 2 and remained in session until midnight February 6.

### FINANCES.

The year was begun with ₱447,332.37 cash available for appropriation and ₱593,500 which, although appropriated from funds of the previous fiscal year for permanent improvements, was appropriated subject to release by the Governor General. Therefore the latter sum which had not been released was considered as actual cash available in the treasury and a portion of the reserve, making in all the sum of ₱1,040,832.37 cash reserve.

The estimated resources for the year were ₱26,326,989.31 and the estimated liabilities ₱25,406,949.55. Of these liabilities ₱19,468,449.11 were for current expenses and ₱2,542,452 for permanent improvements. In all the grand sum of ₱6,501,192.42 was appropriated by the Legislature for permanent improvements from the funds available for the fiscal year 1912. As it was apparent that the finances of the government could not stand such a large appropriation, ₱4,854,500 of this sum was appropriated subject to the release of the Governor General. During the year the receipts from the customs and internal revenue exceeded the estimates, and ₱3,397,027.65 were transferred into the general fund of the treasury and made available for expenditure by the gold standard fund act. At the end of the year, therefore, ₱31,247,673.39 represented the revenues and receipts of the government, an increase of ₱6,011,016.45 over the estimates.

*Expenditures.*—The total expenditures of the insular government for the fiscal year 1912 were ₱30,208,761.50, as compared with



₱28,505,721.41 of the previous fiscal year, an increase of ₱1,703,040.09. Of this total amount, ₱29,786,832.55 was from the general revenue funds, as compared with ₱27,988,227.38 of the previous year, an increase of ₱1,798,605.17, and ₱421,928.95 from the bond fund, as compared with ₱517,494.03 of the year before, a decrease of ₱95,565.08.

*Current expenses.*—The current expenses of the insular government for administration, operation, and maintenance were ₱18,768,317.27, as compared with ₱17,143,635.86 of the prior year, an increase of ₱1,624,681.41. This increase was due in large part to the increase in expenses incident to the opening of the general hospital, the salaries of the justices of the peace, the rinderpest campaign, and the purchase of rice, which accounts for ₱1,119,493.

*Aid to provinces, municipalities, and cities.*—During the fiscal year the insular government gave aid and contributions to provinces, municipalities, and cities, for their general administration, in the amount of ₱1,654,830.75, as compared with ₱1,664,727.03 of the previous year, a decrease of ₱9,896.28.

*Interest and sinking fund payments.*—The fixed charges of the insular government on account of its bonded debt, being interest on the friar lands and public works bonds and the allotments to the sinking funds, were ₱900,773.97, as compared with ₱1,102,782.08 of the year before, a decrease of ₱202,008.11; ₱141,430.85 of this decrease is accounted for by a reimbursement payment during the fiscal year 1911 to the friar lands bond sinking fund.

*Interest on railroad bonds.*—Under guaranty contracts the insular government paid the net sum of ₱525,422.69 on railroad bonds, as against ₱766,946.65 for the year before, a decrease of ₱241,523.96, which is accounted for by repayments made by the companies during the last year.

*Permanent improvements.*—During the fiscal year the total amount of expenditures for permanent improvements was ₱8,359,416.82, as compared with ₱7,827,629.79 of the prior fiscal year, an increase of ₱531,787.03. Of this amount, ₱7,937,487.87 was from the general revenue funds, as against ₱7,310,135.76 for the previous year, an increase of ₱627,352.11, and ₱421,928.95 from the public works bond fund, as compared with ₱517,494.03 of the year before, a decrease of ₱95,565.08. Of the total amount from revenue, ₱7,937,487.87, the sum of ₱4,259,378.52 was on account of insular outlays, and ₱3,678,109.35 were allotted to provinces and municipalities.

*Statement of receipts and expenditures, fiscal year 1912, and resources at the beginning and end of the year.*

Resources, July 1, 1911:

Cash on hand available for appropriation.....	₱447,332.37	
Appropriated from revenue funds, fiscal year 1911, for permanent improvements, not yet released by the Governor General.....	593,500.00	₱1,040,832.37
Appropriated from revenue and available.....	9,926,931.34	
Cash on hand appropriated from proceeds bond sale.....	701,487.08	
Supplies on hand.....	5,510,862.15	
Total resources, July 1, 1911.....		<u>17,180,112.94</u>

**Revenues and receipts:**

Customs.....	₹ 17, 816, 247. 28
Internal revenue.....	9, 459, 421. 33
All other receipts.....	3, 972, 004. 78

Total revenues and receipts..... 31, 247, 673. 39

**Expenditures:**

Current expenses of the insular government.....	18, 768, 317. 27
Aid to cities, provinces, and municipalities.....	1, 654, 830. 75
Interest and sinking fund payments, bonded debt.....	900, 773. 97
Interest on railroad bonds, guaranty contracts.....	525, 422. 69

**Permanent improvements—**

Insular.....	₹ 4, 259, 378. 52
Allotments to provinces and municipalities..	3, 678, 109. 35

Total from general fund revenues.....	7, 937, 487. 87
Insular from bond fund.....	421, 928. 95

Total for permanent improvements..... 8, 359, 416. 82

Total expenditures..... 30, 208, 761. 50

**Transfers and adjustments of supplies:**

Supplies transferred to equipment (bureau of education).....	₹ 1, 212, 794. 18
Supplies dropped from account.....	40, 191. 13
	<u>1, 252, 985. 31</u>

**Resources, June 30, 1912:**

Cash on hand available for appropriation.....	1, 404, 689. 95
Appropriated from revenue funds, fiscal years 1911 and 1912, for permanent improvements, not yet released by the Governor General.....	1, 681, 038. 88
	<u>3, 085, 728. 83</u>
Appropriated from revenue and available.....	8, 286, 064. 50
Cash on hand appropriated from proceeds bond sale.....	279, 558. 13
Supplies on hand.....	5, 314, 688. 06

Total resources, June 30, 1912..... 16, 966, 039. 52

**ALLOTMENT FOR CURRENT EXPENSES OF THE GOVERNMENT.**

The Legislature having failed to make provision for an appropriation bill for the current expenses of the government for the fiscal year 1912, it was found necessary to rely on the provisions contained in section 7 of the act of Congress of July 1, 1902, which states "that if, at the termination of any session, the appropriations necessary for the support of government shall not have been made, an amount equal to the sums appropriated in the last appropriation bills for such purposes shall be deemed to be appropriated; and until the Legislature shall act in such behalf the treasurer may, with the advice of the Governor, make the payments necessary for the purposes aforesaid."

The form of action to be taken by the Governor General in this contingency was one on which there were different opinions. As the Governor General did not believe it necessary to change the allotments for current expenses of the different government entities from those provided in the previous appropriation bill, Act No. 1989, at first it was deemed sufficient to state to the heads of the different departments and to the insular auditor and treasurer that each bureau would receive for the current year the same amount of money as had

been provided for it in the previous appropriation bill. The auditor was later of the opinion that more formal action on the part of the Governor General was necessary, therefore a printed form of letter of advice to the insular treasurer was published on December 18, 1911. This embodied practically the same provisions as had Act No. 1989.

Some slight changes which had been found necessary during the year in authorized personnel and in the allotments for the different bureaus were made. Some new positions had been provided, but these were either in accordance with the provisions of the civil-service act or under the general authority given by the act of Congress of July 1, 1902. Due to a misunderstanding of the instructions of the Governor General, certain provisions of the appropriation bill in connection with the Assembly and some minor matters which in the opinion of those preparing the advice were of a purely legislative nature and could not properly be a part of the administrative instructions, were omitted from this first letter. This was changed, however, when it was brought to the attention of the Governor General and an amended letter of advice was finally promulgated.

Last year at its regular and special sessions the Legislature again failed to provide an appropriation bill for the current expenses of the Government for the fiscal year 1913. The undersigned, therefore, on July 24, 1912, signed a letter of advice for the fiscal year 1913 on the same general lines as the previous one, but differing in the amounts allotted to the different bureaus and in some minor details. This action of the Chief Executive was taken on the theory that in case the Legislature fails to appropriate for the current expenses of the government a lump sum for the support of government is automatically reappropriated under the provisions of section 7 of the act of Congress of July 1, 1902, at the beginning of each fiscal year for which the Legislature has failed to provide; and that this lump sum may be and should be allotted in accordance with the judgment of the Governor General for the support of the government for that year.

#### CONDITION OF PUBLIC ORDER.

Conditions of public order have been discussed in the report of the secretary of commerce and police in detail and it is sufficient to say that peace conditions throughout the islands are and have been satisfactory. As mentioned in the last report, the last bandit of any note, Otoy, was killed in Samar on October 1.

Owing to frequent cases of so-called "juramentado" in Jolo and the unsettled condition among the peaceful Moros in the Lanao district, caused by the presence of a considerable number of armed outlaws on the western side of the lake, a general order of disarmament was issued by the provincial authorities last September. This policy was carried out with but little bloodshed, though it was the cause of some disorder in both regions in the autumn of 1911 and the early part of 1912. The situation was ably handled by the governor of the Moro Province with the aid of the United States Army and the cooperation of the small detachments of constabulary in the locality. It is hoped that this will have a lasting effect on the political and social conditions in the Moro Province, for with the suppression of armed outlaws and the dying down of the custom of

carrying fighting weapons it is believed that the cutting affrays and attacks which heretofore have been a marked feature of the situation will gradually disappear and that it will be more easy for the authorities to protect those who desire to follow the pursuits of peace which alone can bring real development to these people.

#### STRIKES.

Labor conditions throughout the islands appear to be about the same as noted in the last report; but 20 small strikes were reported during the past year, 16 of which occurred in Manila. They were of short duration, were not accompanied by disorder, and did not seriously affect economic conditions. In 16 of them the employers acceded to the demands of the striking employees. The bureau of labor is doing important work with its free employment agencies in Manila, Cebu, and Iloilo in investigating labor conditions and compiling statistics.

#### HEALTH CONDITIONS.

Owing to unsettled conditions in China there has never been a year since American occupation when the islands were more seriously threatened by invasion of contagious disease. The unusual drought also gave a favorable opportunity for an outbreak. Yet health conditions have been better than ever before. Cholera has been generally absent; smallpox, through the vigorous vaccination campaign of the health officers, has been largely reduced, and but two cases of plague were reported, occurring at the end of the fiscal year. This record, of which we should justly be proud, is due in great part to the efficient quarantine and the well-organized district health service.

The General Hospital at Manila has continued its good work, a measure of which may be gauged by the fact that the out-patient department treated more than 25,000 individual patients during the year. The Southern Islands Hospital at Cebu has been completed but has not been opened, due to the last Legislature failing to provide funds for its operation and maintenance. It is hoped that this will be remedied in the coming session. At present the government either administers or pays for beds in the railroad hospitals in Cebu and Iloilo. In the Mountain Province a fine hospital, with dispensaries in the near-by districts, has been opened and is doing much good.

Legislation has been passed looking to the organization of a municipal health service. The demand for better water by drilling artesian wells and constructing municipal water systems continues to gain strength. Nearly 700 successful wells have already been drilled, and it is interesting to note the decreased mortality that follows this pure-water movement.

The work of the Antituberculosis Society continues to increase. A number of free dispensaries have been opened in Manila; a system for house inspection and district nursing has been organized, and the society's sanitarium at San Juan del Monte has been successfully maintained throughout the year. This provides for incipient cases. It is hoped that in the next year a hospital for advanced cases may be constructed and in operation near Laguna de Bay. This can be done if the Legislature will assume the burden of operation.

The collection and segregation of lepers continues; and the results of the study of beriberi and preventative measures against this disease has confirmed in a startling way the polished rice theory mentioned in the last report. One of the greatest fields in the world for medical research is offered by the Culion leper colony. There has probably never been a better chance to study this disease and to discover some cure for this affliction that is so general and so feared in this part of the world. Since the leper colony was founded in 1906, almost 7,000 lepers have been collected. But little is known of the cause and history of this disease, and it would be of lasting benefit to the human race if the necessary funds could be provided and successful investigations of this question by competent scientists were made.

At the last session of the Legislature, Act No. 2122 was passed, which for the first time makes some provision for the care and treatment of the insane. It is estimated that there are approximately 4,252 of these unfortunates in the islands. The only asylum where they can be treated with modern methods is the hospital at San Lazaro, Manila. There is room for only 350 patients there. An appropriation is particularly needed for the care of the insane and for carrying out the provisions of this act. At present the vast majority must be either cared for in the homes of their families or in the provincial jails, where there are no facilities for giving them proper treatment. It is believed that this problem is one which should occupy the close study and attention of the government in the future.

#### RICE SHORTAGE.

The rice situation was mentioned in the last report of the Governor General. In brief, a general rice shortage throughout the Orient coincided with the partial crop failure in the Philippine Islands. The price of rice rose rapidly until in September, 1911, it reached a point which was causing distress and danger of disorder in the more thickly settled portions of the islands. The Governor General appointed a committee of officials and business men with the secretary of finance and justice as chairman, and on their advice authorized the bureau of supply to purchase a large amount of rice from Saigon and Rangoon. Thereafter, wherever it appeared necessary, the government controlled the price of this important food staple in the islands by placing on sale in the public markets government rice at a reasonable price. This was handled in such a way that the rice could only be bought by actual consumers in small quantities. On October 19 the Legislature, by Act No. 2076, took cognizance of the situation and in effect ratified the course adopted by the Governor General and on January 4, 1912, by joint resolution, provided for a select joint legislative committee to investigate and to report with recommendations on the present and future food situation. On January 22 the Chief Executive, in a message to the Legislature, recommended legislation to encourage the diversification of crops, the generalization among the agricultural classes of household industries, and water control for protection against floods and for irrigation. The joint committee reported on January 25, recommending an increase in the annual appropriation for roads and bridges, loans from the general government to provinces and municipalities, legislation authorizing

the Governor General to purchase rice in order to prevent an immoderate increase in price, the passage of the irrigation bill, and encouragement in the provinces of the diversification of crops. As a direct result, on February 6 the Legislature passed Act No. 2152, the irrigation law, and Act No. 2155, authorizing the Governor General to take steps to prevent the price of rice rising above a reasonable rate and appropriating such sums as might reasonably be necessary to carry into effect the purpose of the act. During the fiscal year, under the authority of the latter act, the government imported 13,272 tons of rice at a cost of ₱1,950,254. Of this amount 12,233 tons were sold for ₱1,387,623, causing a loss to the government in actual cash of ₱453,710, inclusive of customs duties. This cash loss is really considered a gain to the country. For every cavan of government rice sold it is estimated that 4 cavans of private rice were sold. By keeping the price of rice down to a normal limit, which was anywhere from ₱2 to ₱6 per cavan under the price to which it would have risen had the government not intervened, there was a saving of approximately ₱15 on every 5 cavans of rice bought by the people. When this is taken into consideration, it can be seen that although the government lost cash on the deal, the taxpayers gained many times this sum by being able to buy rice at a reasonable price. No rice was bought after March, 1912, until June, 1912, when it appearing that conditions rivaling those of last September were bound to recur the government started buying rice and by the end of the year had purchased 1,853 tons at ₱233,996, which is included in the total for the year. Understanding the danger of the government's interfering with normal trade conditions and the damage that might be done to bona fide rice merchants, it is the policy of the government to enter the rice market only to prevent dealers from attempting to take advantage of the people by charging undue prices for rice, and to import sufficient amounts of rice to satisfy the demands of the people in case the dealers fail to import this food staple, and thus to assist in seeing that a sufficient food supply is maintained.

The administrative control of the rice situation has from the beginning been handled by the executive secretary, who has kept in touch with the local needs through the provincial and municipal treasurers, and a more extensive discussion of the problem is contained in his report.

#### RAILROADS.

Railroad construction has progressed steadily during the year in the island of Luzon. Practically no construction was done on the lines of the Philippine Railway in the Visayan Islands, and these accounts will be closed by the beginning of the calendar year. At the last session of the Legislature a bill was proposed relieving the Philippine Railway from constructing the lines on the island of Negros. This was not passed, however, and unless the Legislature grants this request of the company it will have to construct 122.9 kilometers of railroad on this island by the year 1914.

Under the provisions of Act No. 1905 construction of the Manila Railroad has been progressing rapidly. This progress has been materially assisted by the passage of the gold-standard fund acts and the contracts which were signed between the railroad and the gov-

ernment on January 22, 1912, which make necessary the completion of the railroad from La Union to Baguio within two and one-half years.

During the year 70 kilometers of track were laid; on the northern lines 16.4 kilometers of line were opened and on the southern 88.7 kilometers were opened.

After some study a good deep-water harbor capable of development was found on the eastern coast. This port, which is near Lopez, Tayabas, has been named Hondagua, and is the center from which railroad construction is being pushed to the north and south. Construction will recommence in Albay in the early months of the coming calendar year.

The Manila Railroad has now constructed 483 kilometers of its northern line, leaving 89.5 kilometers yet to build. Of the southern lines, 259.1 kilometers have been constructed, with 475.3 yet to build.

#### IRRIGATION AND ROADS.

Among the important measures passed at the last session of the Legislature was Act No. 2152, which gives the islands a method of determining water rights and the government a means of successfully inaugurating irrigation works. The irrigation division of the bureau of public works has been reorganized under the direction of Mr. Gorton, formerly of the United States Reclamation Service. Much work has been done in investigations and preliminary plans for irrigation systems in Luzon and the southern islands, though no construction on a big scale has been started with the exception of the San Miguel, Tarlac, irrigation system. It is expected that in the coming fiscal year a great stride will be made in this important government activity. The progress in irrigation during 1912 was retarded by the necessity of returning the continuing annual appropriation of ₱750,000 to the general fund of the treasury.

The general progress in road construction and maintenance noted in the last report has continued, the figures being shown in another portion of this report.

#### LAND REGISTRATION.

Although fair results have been obtained in the general cadastral surveys in Cebu and Pangasinan, made under the provisions of section 61 of the public land act, No. 926, the survey and settlement of titles in Zamboanga, under the general cadastral survey law, Act No. 2075, passed by the Commission in 1911, has proved beyond a shadow of a doubt the wisdom of this act.

In this survey, in a period of little over two months, the titles to over 2,000 parcels of land valued at almost ₱2,000,000, were fixed by the court of land registration. This was done at a minimum cost to the people. The cost was apportioned according to the land values so that to the poor people whose lots were small it ran as low as ₱2.50 including the certificate; this with the privilege of paying in five equal annual installments, bringing the cost of the general cadastral survey within the reach of all. The cost of the most valuable parcel under this apportionment was only ₱16. The benefits thus coming to the inhabitants of the Mountain and Moro

Provinces should be extended to the remaining provinces in the islands by the Legislature. The recommendations made by the Governor General in the last annual report are repeated and heartily concurred in by the undersigned.

#### GENERAL AGRICULTURE, RINDERPEST, AND LOCUSTS.

The improvement in the general agricultural situation has been retarded by the prolonged drouth through almost the entire archipelago, which occurred from the end of September until the end of the fiscal year. This seriously affected the rice crop and to a lesser degree the corn crop in the southern islands. In Cebu there have been examples of localities where four and five plantings of corn were made only to be killed by lack of rain, worms, and finally the locusts.

The situation has been relieved in part by planting different sorts of food crops. The shortage and high price of rice in the early months of the fiscal year led to the government's making every effort to induce the people to plant other crops and has resulted in a notable display of individual initiative and resourcefulness. By teaching the people not to rely on one crop or one line of endeavor for their livelihood, but to diversify their crops and to engage in household industries, it is hoped that in the future if one crop is greatly damaged the people will still have other crops and other means of livelihood with which they can secure money to buy the necessities of life.

At the end of the long dry season great swarms of locusts appeared, especially in the southern islands. The locust question having been brought to the consideration of the Legislature by the Governor General, Act No. 2121 was passed providing means for combatting this pest by the appointment of provincial locust boards, by making an appropriation for the fight, and by placing the general management and leadership of it in the hands of the director of agriculture. Provinces requesting assistance from the general government have been furnished funds, and it is believed that the fight has been more successful than in previous years. It is the opinion of the undersigned that the plague of locusts can never successfully be handled until methods are found of exterminating the locusts in their breeding places.

The rinderpest situation has improved and the quarantine policy inaugurated by the bureau of agriculture has been consistently followed throughout the year. After due consideration it had been decided by the officials in charge that only by means of concentrated quarantine could the rinderpest situation be relieved. By concentrated quarantine is meant a port quarantine to prevent the disease entering the islands from outside and a local quarantine of infected districts until the disease is eradicated. This system involves some hardship on the people and to a certain extent cripples agriculture and commerce by preventing the free movement of animals between the provinces. The government has endeavored to get the co-operation of the municipal and provincial governments and of the farmers and has succeeded to a large extent. With the aid of the scouts, placed at the disposal of the government by the commanding general, strict quarantines have been maintained in the infected districts. A quarantine fence has been established between the hills and the coast, cutting off from the south the provinces north of Pan-



gasinan. Pangasinan has been cleaned and the quarantine has slowly fought its way south through the provinces of Nueva Ecija, Tarlac, Pampanga, and Bulacan. That a measure of success has been achieved is proved by the figures which show a reduction of 47 per cent in the number of municipalities infected from 64 to 34. The number of reported deaths of carabao and cattle from rinderpest for the year was approximately 3,000, or one-quarter of 1 per cent of all the animals, while in 1902, 625,000 deaths, or about 43 per cent of the animals existing in the islands, were reported. A quarantine against Indo-China and Hongkong has been maintained throughout the year. Practically every time a shipment was allowed in the islands infection resulted. Cattle from Indo-China and Hongkong can now be landed only at Manila, after a three months' quarantine. This measure has been deemed necessary in spite of the constant protests of cattle importers. It is thought that the protection of over 1,000,000 animals now in the islands is of greater importance than further importations.

#### EDUCATION.

The progress of education in the islands noted in the last report has continued to be satisfactory. Owing to the fact that there was no increase in the annual appropriation of the bureau of education and the necessity of increasing the salaries of those teachers who had by long and continued service earned a promotion it was found necessary to close some of the smaller primary schools throughout the islands. While this is to be regretted, it is unavoidable unless more funds can be allotted for education. This explains in some measure the decrease in registration of pupils for the year. It should be noted however, that the ratio of attendance to the registration was considerably higher than the previous year, and this is considered to be a favorable sign.

The practical agricultural and industrial lines of training, in which the bureau of education is putting a great part of its energy, continue to improve and to become more effective. The government aims to give a boy or girl an industrial education which will be of practical benefit to him in taking up his life work after leaving school.

The opening of a school for household industry in Manila, which was made possible by the passage of Act No. 2110, should also be noted. The course in this school is short, and selected women from each province are sent at the cost of the government to learn certain household industries and are then expected to return to their homes and to start centers of these industries in the provinces. This, it is hoped, is a step in advance in assisting the general prosperity of the Filipino people.

#### UNIVERSITY OF THE PHILIPPINES.

The university has completed its first year of actual operation, President Bartlett having assumed office June 1, 1911. The year has been mainly one of organization and of laying the foundations of the institution on the broad lines which are necessary if it is to fulfill its purpose.

It is believed that the university has a wide field of usefulness before it, not only in the Philippine Islands but in the Orient. When

one considers what changes the year has brought in the Far East, and particularly in China, this opportunity becomes even more apparent. Toward the end of the year many requests were received from China and other countries for the admission of foreign students. It is true that already there have been established several universities in China, and the English University of Hongkong for Chinese students offers modern educational advantages. It is believed, however, that the University of the Philippines affords exceptional opportunities to the Chinese student, for in this country are being solved the very problems which he will have to meet in his own country, and the expense of sending students to the University of the Philippines is very much less than the cost of a college education in America or in Europe. The board of regents has considered this question, and realizes the value to the Filipino people of educating here men who perhaps in a few years will be of great influence in the development of a new China. Yet in these days, when it is not possible to do all that we desire for our own youth, it has seemed wise, when we can make room for them at all, to charge foreign students the actual cost of their instruction.

Another problem in connection with the growth of the university is the development of a Filipino faculty. At the beginning it has been found necessary to choose the members of the faculty for the most part from Americans. It is believed, however, that it will be for the best interests of the university to have as many Filipinos in the faculty as possible and that under the law providing for traveling scholarships, whereby picked graduates of the university can study abroad and return with special knowledge and experience which will enable them to teach the Filipino youth to advantage, this can be accomplished.

One of the important fields of activity which the university is entering and for which it has exceptional opportunities is that of the study of tropical medicine and public health. Two courses for graduate study in these subjects will be opened at the beginning of the calendar year and will offer a unique chance of investigation in these important lines of medical endeavor.

The total registration of students in the university, including the school of fine arts, was 1,400 as compared with 1,220 last year, and it is believed that a similar increase may be expected in the coming year.

At the graduation exercises 30 degrees of graduates in course were given. Ten provinces were represented in the graduating class of the college of liberal arts, and students from all provinces in the islands are studying in the colleges of agriculture and forestry, showing that the university is already beginning to fulfill its mission as the University of the Philippines.

The first class that has completed the entire course of the medical school was graduated this year, nine degrees having been conferred, among the recipients of which was the first Filipino woman to receive a degree of M. D. An honorary degree was bestowed on Father José Algue in recognition of his eminence in science and his distinguished and loyal service to the Government of the Philippine Islands.

One of the immediate problems which the university authorities must face is that of providing adequate buildings for the students. One building is now being erected at a cost of ₱250,000, but it is hoped

that in the near future, either by gift or by appropriation by the Legislature, further provisions can be made for this vital necessity of the institution.

#### JUSTICE.

Matters have progressed steadily in the administration of justice. No changes were made by the Legislature in the machinery of justice, and the new system of appointing justices of the peace by examination and on a salary basis has been tried out this year. It is believed that this will work satisfactorily and that in time but a small annual appropriation will be needed to administer these courts.

The great delays which occur in bringing appealed criminal cases to trial and final settlement in the Supreme Court have been brought to the attention of the undersigned. Oftentimes individuals have had to wait as detention prisoners in Bilibid Prison from five months to two years before their cases have been finally decided by the highest tribunal in the islands. This matter was studied and has been found to be due to a number of causes, most of which it has been possible to remedy.

#### USE OF THE ENGLISH LANGUAGE.

In spite of the fact that it is admitted to be of vital importance to progress and a closer union among the various peoples of the islands that all should be given a chance and encouraged to have a common language, a medium of communication among themselves and with the outside world; in spite of the fact that English seemed to offer the best solution of this problem, the objections to the establishment of English as the official language have been continued on the part of many of the adult and more influential Filipinos. The Government has spent millions on education in English in the primary and secondary schools; the service now generally uses English, yet antagonism is still shown by those who speak Spanish only.

During the last session of the Legislature the Assembly passed a bill postponing the use of English as the official language of the courts until January 1, 1917. The adoption of English as the official language had already been postponed several times from the original date, January 1, 1906, to January 1, 1913. When it was decided to make English the official language the enthusiasm for this study among the adult Filipinos was marked, but it has become less and less with each postponement, until a very general apathy has resulted in the past few years. It is believed that a further postponement will do no good, but will tend only to discourage any further study of the English language by Filipinos. The Commission therefore amended the bill, leaving the date unchanged, but leaving it to the discretion of the courts whether or not the record should be made in the Spanish language, allowing any party or counsel to examine or cross-examine witnesses or make an oral argument in Spanish, permitting any party to submit application, pleading, or brief in Spanish, and in cases where all the parties or counsel so stipulate, in writing, allowing the proceedings to be conducted in Spanish. This amendment to the Assembly bill failed in conference, so English remains the official language of the courts after January 1, 1913.

In furtherance of the general scheme of encouraging the use of the English language in the service an executive order was issued August 8 1912, the substance of which is as follows:

It is required of officers and employees under the administrative control of the Chief Executive or any of the executive departments: That whenever possible the minutes of the meetings of provincial boards and municipal councils be kept in English; that all official correspondence, whether to Government officials or to private individuals, be written in English, and that in making appointments or promotions in the service preference be given to persons having a sufficient knowledge of the English language to enable them to carry on correspondence in English. As it is not desired to make these requirements absolute in cases where it is not practicable to carry them out, the executive secretary is empowered to use his discretion in the modification of them where necessary upon application.

It is hoped by these means a further step in advance toward the solution of this important problem will be taken. It is believed that hearty cooperation from all will be obtained when the people realize that a common language is necessary before they can hope to have a government of their own which will not depend upon the will of a small class of educated men.

#### PUBLICITY.

Act No. 2058 of the Legislature appropriated ₱50,000 for advertising Philippine products and interests in the United States, on condition that only so much of that sum would be expended as should equal an amount contributed for the same purpose by private persons interested in the development of the islands. To carry out the intent of this act a publicity committee was suggested by the Governor General, two members of which were to be appointed by him and two by the Manila Merchants' Association, all expenditures, however, to be approved by the Governor General. On October 31, 1911, Mr. D. M. Carman and Dr. Ariston Bautista y Lim were appointed to represent the Merchants' Association, and Messrs. J. M. Switzer and J. S. Reis, later succeeded by Messrs. E. B. Bruce and G. A. O'Reilly, were appointed by the Governor General to represent the government. Approximately ₱13,000 has been raised by the merchants, making available ₱26,000 for this important work. Mr. M. L. Stewart, director of prisons, was given leave by the Governor General in December and was appointed commissioner for commerce in the United States to be the agent of Philippine publicity there. Agents of the publicity movement have also been appointed in Japan and China. The committee has been an active one and has prepared folders, books, lantern slides, and cinematograph films and has made plans whereby the possibilities of the Philippine Islands for travel, agriculture, and investment will be brought to the attention of the public. It is our endeavor through these means to attract a portion of the large tourist trade which annually comes to the Orient. It is reported that the income from the tourist trade alone in Japan amounts to ₱50,000,000 a year, and it is believed that if the scenic attractions, the industries, and the possibilities of the islands are brought to the attention of the traveling public this country will get its fair share of the large amount of money spent in the Far East by tourists.

## BOARD OF RATE REGULATION.

During the year the board of rate regulation's chief activity has been in considering and adjudicating the cases arising under order No. 15, mentioned in the last report. This order has had to be modified to a certain extent to meet actual conditions as they become known throughout the islands, and although at its promulgation it was generally condemned by the carriers and resulted in some trouble in and about Cebu these matters have been satisfactorily arranged. A special committee was sent to Cebu to hear the complaints of the shipping men there and it is believed that the order will prove of value to both carriers and shippers and in assisting and encouraging interisland trade.

## MANILA HOTEL.

The Manila Hotel, which has been mentioned in the last two reports of the Governor General, was formally opened July 1, 1912, and it is now believed that Manila can boast of the finest hotel in the Far East, which will meet a long-felt want in the islands and should assist materially in attracting the tourist trade here.

## BAGUIO.

The progress made in Baguio has continued on the same general lines as those mentioned in the last report. In spite of the damage that was done to the Benguet Road by the typhoons of July, 1911, the road was opened in December at a comparatively small cost and has continued to be in good condition throughout the year. It may now be safely said that the future of Baguio is assured. Contracts have been signed with the Manila Railroad Co. for the construction of a railroad line to Baguio to be built within two years. The railroad will enter Baguio from the west, from La Union, parallel to the general line of the old Naguilian Trail. Work has been begun and a considerable portion of the earthwork has been completed. An expert on rack railroads was obtained from Europe who has made plans for the construction of the line. Surveys have been run, and within a few months final plans will have been completed and the materials for this line will have been ordered. With rail connection an accomplished fact, the important problem of making Baguio available to the general public will have been solved, and it is believed that the summer capital will soon justify itself. Rapid developments may be expected, for, in addition to its being the seat of government for at least three months each year, all obstacles in the way of the development of the Army post there will be removed. The Army sanitarium will probably be largely increased and the naval sanitarium will be constructed. The construction of the naval sanitarium in Baguio will give the American Government a place where its officers and enlisted men may recover in a temperate climate from the diseases incidental to tropical service and a sanitarium which will always be available and will not be cut off at the time of the greatest need.

A movement has been started and the foreign consuls in Manila have made favorable representation to their governments to have their official residences in Baguio while the seat of government is

situated there during the hot season. It is also believed that a large development of the gold-mining region near Baguio will result from rail connection to Manila.

The interest in Baguio of the wealthy Filipinos mentioned in the last report has continued and plans have been made for the early construction of private houses in Baguio which will require an expenditure of more than ₱170,000.

During the year the bureau of public works carried 5,172 tons of freight on the Benguet Automobile Line and 19,532 passengers.

With the railroad completed, the large amount of motor rolling stock which the bureau of public works at present must keep on the road to supply the needs of the city may be released for work in the lowlands where it is intended to use it on the improved roads as feeders to the railroads throughout the islands.

The government moved from Manila about the middle of February and returned between the middle of May and the middle of June, making a season of approximately three months in the hills for about 700 of its employees.

#### PANAMA-PACIFIC INTERNATIONAL EXPOSITION OF 1915.

By Act No. 2163 the Philippine Legislature appropriated ₱500,000 for a Philippine exhibit at the Panama-Pacific International Exposition to be held in San Francisco in 1915. It provided for the appointment of a Philippine exposition board to handle this matter; and the Hon. Rafael Palma, Mr. W. W. Barclay, then treasurer of Iloilo, and Gen. Manuel Tinio, the director of labor, were appointed members of this board. Since that time, Mr. Barclay having been appointed special agent to the Governor General, Mr. F. W. Taylor, the director of agriculture, who has been intimately connected with several of the largest expositions in the United States, has been appointed a member and director general of the board.

The board has organized and has taken up the question of exhibits with the different bureaus and departments of the government and with the various provincial governments. They propose to have a very complete exhibit of the agricultural, horticultural, and industrial products of the islands. A favorable site for the Philippine exhibition has been allotted to the board and everything possible is being done toward the preparation of an exhibit worthy of the Archipelago. It is believed that further appropriations by the Legislature will be necessary or that some aid must be given by Congress for the Panama-Pacific Exposition, as it is clear that the ₱500,000 appropriated for this purpose is inadequate for the buildings and other expenses which are necessarily incident to such an undertaking.

#### EXECUTIVE BUREAU.

No important changes have taken place in this bureau during the year. It has continued to be most efficiently administered, and although the personnel has remained almost stationary, its activities have been largely increased.

During the year Mr. W. T. Nolting, special agent, was appointed collector of internal revenue and Mr. W. W. Barclay, then treasurer of the Province of Iloilo, made special agent in his place.

Among the important activities of the executive secretary has been the investigation of proposed loan investments from the funds of the insular treasury, available for this purpose, to provinces and municipalities for permanent improvements. Investments of these insular funds, which have heretofore been largely made in interest-bearing deposits in banks, and in bonds, have this year been made in loans for provincial roads, bridges, and buildings, and for municipal buildings and markets. Such loans as are made bear interest at 3 and 4 per cent per annum, and are repayable in installments up to 10 years. In addition to the safety of these loans, which are made only after the closest examination of the finances of the provincial and municipal governments, the returns to the government and to the people are very much more than the actual cash interest received. This is especially true of the loans made for municipal markets which, when constructed, add to the health and good order of the community, and very largely to the receipts of the municipal government. On June 30, 1912, there were available for investment ₱9,922,417.58, of which ₱3,795,079.94 had been loaned to provinces and municipalities and ₱3,030,300 invested in approved bonds.

The executive bureau has general administrative charge of elections. This year elections for provincial and municipal officials and for delegates to the Philippine Assembly were held on June 4. The results and details so far as they have been decided, are shown in the report of the executive secretary, forwarded with this report.

#### PROVINCIAL GOVERNMENTS.

The number of provinces under the administrative authority of the executive bureau remains the same as in the last report. The percentage of Filipinos in the provincial service is 93, as compared with 92.6 for 1911. In the regularly organized provinces the governors and third members are elected; the treasurers are appointed by the Governor General, there being 11 Filipino and 22 American treasurers. In the special provinces of Palawan, Mindoro, Agusan, Mountain Province, and Batanes the governors are appointed, all being Americans. The Moro Province continues to be governed by the general commanding the Department of Mindanao, who is appointed governor of the Moro Province by the Governor General, and he in turn appoints the governors of the districts into which the province is divided.

All regular and special provincial governments, with the exception of the Moro Province, which legislates for itself, took advantage of the provisions of the double cedula law to share in the insular allotments for roads and bridges. There was no remission of the land tax; the date for collecting the same without penalty was, however, extended from June 1 to June 30, in order that no one who was a qualified elector and who was registered during the month of May might, by reason of becoming delinquent in the payment of the land tax on June 1 and voting at the election on June 4, become guilty, perhaps unwittingly, of violating the election law, which disqualifies delinquent taxpayers as voters.

There was a consistent advance in the construction of roads, bridges, and in permanent improvements during the year. The total length in kilometers of roads in operation at the close of the year was:

1,847, first class; 2,152, second; and 3,216, third, as compared with 1,587, 1,069, and 2,956, respectively, in 1911. A reinforced concrete jail at Iloilo and provincial buildings for Capiz, Iloilo, and Isabela were completed during the year. A provincial building, jail, and store room at Cabanatuan, Nueva Ecija, are nearing completion, and the provincial capital will be transferred from San Isidro on October 1. One hundred and forty-eight artesian wells were drilled during the year; the total number of wells now giving pure water to the people is 686.

Conditions of public order in the Mountain and special provinces have been uniformly good; health conditions have improved, and the trail work which is necessary to open up the country and bring the people more closely in touch with each other and their governors has steadily progressed.

However, it may be stated that, in general, the conditions of public order have been fair. There has been a great increase in the amount of road construction and permanent improvements. Although the province has suffered somewhat from the drought, it has been the most prosperous year for commerce that has ever been recorded.

At the Philippine Exposition, held in Manila February 3-11, 1912, 26 of the regularly organized and 4 special or non-Christian provinces made extensive exhibits. The success of this exposition was due in a great measure to the efforts of Mr. Barclay, then provincial treasurer of Iloilo, who was the director general. It was a distinct advance over the exhibit of a year before, and of the utmost value in placing in a concrete way before the Manila public and the visitors who were here at that time the commercial and industrial possibilities of the islands.

#### BUREAU OF CIVIL SERVICE.

On January 1, 1912, there were in the permanent civil service 8,713 employees, an increase of 1,099 over the preceding year, 47 of whom were Americans and 1,052 Filipinos, due for the most part to the placing of the justices of the peace on a permanent examination and salary basis. During the calendar year 1911 the proportion of Americans in the permanent service decreased from 35 to 31 per cent.

The total number of persons examined during the year was 7,422, an increase of 6 per cent over the preceding year. The tendency noted for several years for the number of Americans examined to decrease, the number of Filipinos examined in English to increase, and the number of Filipinos examined in Spanish to decrease continued. During the year 6,259 took educational examinations in English, as against 988 in Spanish; 30 per cent of those examined in the former language passed, while but 19 per cent of the latter succeeded. Of the Filipinos promoted, 1,206 had qualified in English examinations and 477 in Spanish.

Eight hundred and eight appointments were made to the classified civil service as a result of examinations held in the islands, a decrease of 142, or 18 per cent, from the preceding year. Only 92 Americans were appointed, as compared with 165 during the preceding year, a decrease of 44 per cent. The proportion of local appointees who were Filipinos increased from 83 to 89 per cent. The number of appoint-



ments made in the United States to the classified civil service during the year was 243, as compared with 268 in the preceding year.

During the year the question of the prevalence of tuberculosis among the employees of the government was investigated. As a result of correspondence between the insular auditor, the director of health, and the director of civil service, the Governor General directed that all new appointees to the insular civil service in Manila be required to submit to a physical examination by a physician of the bureau of health, and that no appointment be effected until a satisfactory certificate is obtained that the applicant is not suffering from some dangerous communicable disease.

For further particulars and recommendations of the director of civil service, attention is invited to his report, which is submitted herewith in detail.

#### CITY OF MANILA.

The administration of city affairs has continued without noticeable changes during the past year. During the year Mr. Roxas was absent for some months, and during his absence Mr. McDonnell was acting president of the municipal board.

Public order has been fair, the police showing an increase of arrests over the previous year, due to a large increase of cruelty to animal cases, violations of the opium law, and petty thievery. A wave of petty thievery spread through the city toward the end of the dry season. This was partly caused by the demoralization of the police force, due to the extended police investigation, to the hot weather and consequent relaxing of house protection by owners, and to the crying need of an habitual criminal act. It is believed that an act prepared on modern lines, looking toward the punishment of habitual criminals, will do more than any other one thing toward the decrease of crime in the city of Manila.

The health conditions in Manila have been excellent. There has been a minimum of cholera, but two cases of plague, and almost no smallpox.

In April, due to the extended drought and to the appearance of leaks in the Montalban Dam, there was a considerable shortage in the city water supply. The engineers who had for some time been investigating the situation took advantage of the opportunity afforded by the excessive low water to close the crevices which had appeared in the limestone at the sides of the dam so that this waste, which had been increasing for some time past, has been entirely checked. The dam itself, on examination, was found to be well constructed and in perfect repair. While these investigations were in progress it was found necessary to use the old Santolan pumps and to supply water from the Mariquina River. For a short period the inhabitants of Manila were put to some inconvenience on account of the small supply of water, which was remedied as far as possible by using water from the esteros for sprinkling the streets and by cautioning the inhabitants to make a reasonable use of the water supplied by the city water system. It is interesting to note the increase in sickness which can be traced directly to the use of the water of the Mariquina River. In spite of the efforts of the health authorities and the strict injunctions to boil all

drinking water, the death rate from diseases due to the consumption of bad water increased by leaps and bounds. When the use of water from the new water system alone was resumed this wave of disease subsided as quickly as it had arisen.

The average consumption of water per head has increased surprisingly since the new waterworks were put into commission some years ago. It is believed that the water situation is for the present well in hand, and studies are being made looking toward measures which must soon be taken to increase the water supply of the city.

During the year 155 fires occurred, 10 more than in 1911. This is the largest number of fires that has ever occurred in any one year since the organization of the fire department, and the loss of ₱3,442,657 is the largest fire loss that has ever been experienced. To increase the efficiency of the fire department it has been decided to motorize the entire department. It is estimated that by this means an annual saving of ₱50,000 can be effected. The bureau of navigation's launches which assist in fires along the water front and esteros will be supplied with extra large pumps and fire-fighting apparatus.

The general advance during the year in the progress of park construction mentioned in the last report has continued. The condition of the city streets has improved, and it is hoped that in the coming year decided progress will be made in this important particular. Since the end of the fiscal year considerable loans have been authorized to be made by the general government to the city for opening up new streets and widening the old ones in the congested business sections, particularly in the Escolta and in the Chinese section. This will materially assist traffic and will make the fire risk in that portion of the town very much less.

The greatest need in the city school situation continues to be that of schoolhouses. There are no funds available for the construction of new schoolhouses, and the rented buildings are poorly ventilated and lighted. The city authorities are actively taking up the question of school playgrounds, and a system of supplying the children with cheap and substantial meals in the middle of the day has been inaugurated. Medical inspection of the children is also carried on. In general, the situation is an extremely good one.

Very respectfully,

NEWTON W. GILBERT,  
*Acting Governor General*

To the PHILIPPINE COMMISSION,  
*Manila, P. I.*



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**REPORT OF THE EXECUTIVE SECRETARY.**

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## REPORT OF THE EXECUTIVE SECRETARY.

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THE GOVERNMENT OF THE PHILIPPINE ISLANDS,  
EXECUTIVE BUREAU,  
*Manila, September 16, 1912.*

SIR: I have the honor to submit herewith the report of the executive bureau for the year ending June 30, 1912.

During the period covered by this report, among the most important occurrences in which the executive bureau has been concerned have been—

The successful intervention by the government in the control of prices and assurance of adequate supply of rice, the chief food staple of the inhabitants of these islands;

The presentation to the Legislature of a bill, now Act No. 2110, providing for industrial instruction of adults, particularly in those branches coming within the classes generally termed "cottage" or "household" industries;

The further study of adequate remedy for the increasing dependence of the Philippines on foreign supply of food staples;

The beginning of systematic effort, under the direction of this office, for the improvement of sanitation, development of municipal revenues and embellishment by financing the construction of public markets, water-supply systems, public cemeteries, plazas, playgrounds, street widening, and the determination by municipal councils, with the advice of this office, of street layout plans for present and future guidance;

The investment of sinking funds and other special funds in financing the construction of provincial public works of a permanent character, including buildings, bridges, and roads, as well as those municipal improvements already mentioned, thereby serving the purpose and avoiding the difficulties of a multitude of small bond issues; and

The elections for members of the Assembly and provincial and municipal officers, which, under the election law as amended, are now for a term of four years, beginning October 16, 1912.

The executive secretary, under the organic act creating the bureau, acts for and in the name of the Governor General in many routine and other matters, and on his own responsibility, by virtue of specific statutory provisions, in a considerable number of lines of effort, particularly in the supervision of provincial and municipal administration.

### GOVERNMENT INTERVENTION IN THE RICE MARKET.

The production of rice in the Philippines for more than 10 years past has fallen far short of the amount required to meet the demand for this chief food staple of the majority of the Filipino people, and

when it was found that there had occurred coincidentally, both in the Philippines and Indo-China, our chief foreign source of supply, a serious shortage in the 1910 crop, which is in greatest part harvested during the months of September to December, it became apparent that a critical situation would occur. The anticipated disturbed conditions in the market materialized in the month of August, 1911, precipitated by the knowledge of the order of the French Government in Indo-China prohibiting the export of rice. The price went rapidly upward until on September 15 the extraordinarily high quotation of ₱8.70 was the lowest which could be secured for the standard quality—Saigon No. 2, white—in 1,000 cavan lots at the dealers' warehouses in Manila. For more than six years previously the wholesale market price of rice in Manila had been below ₱6 per cavan (125 pounds).

On September 16, 1911, the Governor General appointed a committee composed of the secretary of finance and justice, the executive secretary, a member of the Philippine Assembly, the president of the Bank of the Philippine Islands, and the president of the Filipino Chamber of Commerce, "to investigate the present and probable future market conditions in connection with the alleged scarcity of rice in the Philippine Islands," and to "make recommendations as to the measures that, in its opinion, this government should take in order to prevent distress in the Philippine Islands, through the lack of this article of prime necessity."

It was obvious that drastic action must be taken at once to prevent further rise in prices and to bring them if possible back to a figure approximating those customarily ruling, and upon which were premised the wage schedules of laborers and of 95 per cent of skilled and unskilled employees of commercial and industrial enterprises. Importers and large dealers seemed definitely of the opinion that prices would go very much higher, and it was reported that one large dealer who had about 100,000 cavans in stock refused to sell at ₱8.70, and said he expected to get ₱12 per cavan for his stock. Upon the recommendation of the committee a cargo of rice was purchased which was available for immediate delivery at Manila and another for almost immediate delivery at Cebu, and further purchases were made of cargoes which would probably not otherwise have come to the Philippines but have gone to other rice-consuming countries in the Orient, the shortage being general throughout this entire region. A total of 13,272.48 tons were purchased at a total cost of ₱1,950,254.73. This rice was placed on sale through provincial and municipal governments as far as possible directly to consumers in small quantities. The upward movement of prices was, of course, checked at once by this action, and dealers, in order to move their stocks, sold at rates slightly below the government price, which was then from time to time reduced until on November 11, 1911, the government price was fixed at ₱6 per cavan f. o. b. Manila, which, as has been stated above, was slightly greater than the highest quotation for several years previously.

The heavy floods in the latter part of 1911, followed by a general and exceedingly severe drought throughout the rice and corn producing provinces, indicated a still greater crop failure for 1911 than that of 1910. As a result, the local producers of rice either had none to sell or were unwilling to sell until much later, and the early crop, which

ordinarily begins to come into the market at the end of October each year, did not do so. The problem then became one not only of control of prices but the assurance of an adequate supply of rice until the latter part of January or the middle of February, when the Indo-China crop ordinarily begins to arrive in Manila and Cebu.

While the popular feeling had been one of commendation of the government for its intervention in the control of prices, there had been a growing disposition to criticize the government for having purchased too heavily and thereby incurred an alleged probable unavoidably heavy loss through overstock. However, the unanticipated shortage in the local 1911 crop, added to the fact that the export of rice from Saigon was prohibited by the French Government and the Rangoon market exhausted, resulted in placing the Philippine Government in the position of having acted most fortunately in purchasing heavily as it did. Only by the exercise of great care and the strict enforcement of restrictions as to the amounts that might be sold to any one purchaser was it possible for the government to carry the situation through until February 14, when the new local and Indo-China crops became a controlling factor in the market. All of the government stocks of rice were exhausted and nearly 1,000 tons more than was available could have been shipped out had requisitions been filled without reduction during the last months of the operations. The loss to the government was ₱188,261.22 or, including customs dues on rice purchased by the government, ₱453,710.82. This loss was incurred on funds of the insular treasury, the undivided money of the people, and was many times over offset by savings aggregating several millions of pesos in the pockets of the individual purchasers and consumers of rice, who by reason of the intervention of the government paid but from 50 to 75 per cent as much for their rice as would otherwise have been necessary, and, furthermore, would probably have been for at least one month entirely without rice and forced to seek substitutes. The saving to the public on the stock of the one dealer already mentioned amounted to more than the total loss to the insular treasury.

By reason of the serious shortage in the local 1911 crop it was apparent that an unusually large amount of rice must be imported this year. The Indo-China crop was also found to be short again, and prices in the Manila and Cebu markets have accordingly kept abnormally high. In view of the probable repetition of last year in the exhaustion of stocks in both Saigon and Rangoon, or at least that they would be so limited as to fall easily into the hands of speculators, it seemed necessary again for the government to intervene, and the Legislature which on October 19, 1911, had, by Act No. 2076, in effect confirmed the action of the Governor General in the purchase and sale at reasonable prices of foodstuffs, again by Act No. 2155 authorized the Governor General to take such steps as in his judgment might be necessary and warranted by circumstances to prevent the price of rice from rising above a reasonable rate and to supply rice and other foodstuffs to the people at reasonable prices.

Both of the statutes mentioned above call on the Governor General to recommend to the Legislature measures of a permanent character tending to assure an adequate supply of foodstuffs. Active propaganda have been carried on by the bureau of education to generalize the use of Indian corn or maize as a food substitute for rice. Here-



tofore such use of maize has been limited to but four or five provinces. Inasmuch as a crop of corn may be planted and matured in a shorter period of time than any of the ordinary varieties of rice and has greater resistance to drought, its advantages in these regards over rice as the staple cereal are important, particularly in years of drought or rice-crop shortage for other reasons.

Under the immediate direction of the Governor General, and as the active member of the committee appointed by Executive Order No. 47, the executive secretary has undertaken to keep constantly informed regarding the local food situation throughout the Archipelago, in the rice markets of Saigon and Rangoon, and the situation generally throughout the rice-consuming countries of the Orient which depend upon Saigon and Rangoon to supply their shortages. The bureau of supply purchased, stored, and shipped the government stocks of rice which have in greatest part been distributed and sold to consumers by municipal treasurers under the supervision of the provincial treasurers operating under the direction of this office. In the city of Manila the department of sanitation and transportation handled the sale of government rice in public markets with marked efficiency and to the satisfaction of all concerned.

#### HOUSEHOLD INDUSTRIES.

The desire of the Legislature as expressed in both Act No. 2076 and Act No. 2155 for a permanent remedy which would assure a sufficient food supply for the people of these islands, called for either an increased production of rice, which would cover the deficit and terminate the necessity for importing this cereal, or the improvement of the economic condition of the masses of the people to a point which would enable them to purchase rice or its equivalent at even abnormally high prices.

The annual importation of rice into the Philippines according to the experience of the past 13 years may be depended upon to be from 100,000 to 250,000 tons. To produce this quantity here it will be necessary to increase the area planted to rice in these islands by about 250,000 hectares (600,000 acres), or secure an improvement in the present methods of cultivation which would give a corresponding increased production. But even were all the rice required for consumption in the islands produced here there must be anticipated years in which by reason of crop failures in some districts the inhabitants thereof by reason of their complete dependence upon one single crop, be it sugar, tobacco, copra, or rice, and for other existing economic conditions, would be without money with which to buy rice from those districts of the islands where an excess production would be had. This very situation has existed repeatedly in the history of the islands and may be expected to repeat itself until a remedy is discovered and applied. And perhaps the most lasting harm caused by the conditions just mentioned is that the people, owing to the failure of their own crop and having no other resources, are forced to leave their fields and homes and seek employment elsewhere to secure food. The natural movement under these conditions is to the large centers of population where employment in factories and other industrial activities may be had. While families make this change, intending it to be a mere temporary arrangement,

a considerable percentage remain in the cities and are permanently lost to agriculture, the fields formerly cultivated by them are abandoned, and the danger of too great a trend from rural to urban life threatens.

A review of the experience of other countries, particularly in Europe and Asia, seems to indicate that the generalization of cottage or household industries offers a solution, in part at least, of our problem. The Filipino people long have been famous, where their products are known, for the making of fine embroidery, hats, and other objects of great demand in the United States and which can be produced advantageously in the homes of the workers rather than in factories. Furthermore, these industries seem to call for the investment of very little, if any, cash capital by the individual worker. While the public schools are devoting as much time as may be to the instruction of children in these industries, it seemed apparent that for immediate and large results it would be necessary to provide for the instruction of adults in large numbers.

In the course of the investigation of the subject grave doubt was expressed by many presumably well-informed persons as to the feasibility of teaching women of the masses fine embroidery or lace making, and it seemed probable that this doubt would be a sufficient obstacle to prevent the adoption of a program for systematic work looking to the generalization of these industries at an earlier date than would naturally result from the instruction given the children in the schools. To demonstrate the fallacy of this doubt the director of education arranged, with the approval and enthusiastic encouragement of the director of prisons, for Miss Fannie McGee, who was in charge of instruction of household industries in public schools in the city of Manila, to inaugurate instruction work in the women's department at Bilibid Prison. The female convicts were with rare exception women of a low degree of intelligence and untrained in the use of a needle, nor had they had other mental or manual training helpful to the purpose. By reason of their natural talent for such work, and under the well-considered method of instruction, within four months a considerable number of the women qualified as efficient workers and none has failed to develop the efficiency necessary to produce a marketable product representing at least a fair daily wage. The constant and voluntary interest displayed by the women was of course essential to the satisfactory results obtained. This demonstration would seem to prove the probable success of industrial training for the women of the masses, with a resulting economic efficiency on their part equaling, if not exceeding, that of the men at present engaged in agricultural work. The feasibility of hat making, mat making, and other pursuits coming within the general class of household industries may be considered unquestionable in view of the results just above stated, particularly as they have long existed to a limited extent in certain villages in the islands.

The information at hand seemed to warrant the Governor General in recommending the matter to the Legislature. A bill drafted by the director of education upon the suggestion of this office was presented to the Philippine Assembly and passed by the Legislature as Act No. 2110 on January 20, 1912. It appropriated the sum of ₱100,000 for the establishment and maintenance in the city of Manila of a school of household industries. This institution is placed

under the director of education and provides for instruction of about 300 women per annum. The plan contemplated the filling of these scholarships by the appointment of representative women from the various provinces in the Archipelago, and the law requires that the appointees sign an agreement to return upon the completion of the prescribed course of instruction to their home towns for the purpose of instructing other women in the same industry or industries in which instruction had been received from the government.

It is hoped that the success obtained in this institution will be such as to warrant the Legislature in making further appropriations, not only for the continuance of the Manila school but in time for the establishment of similar institutions at the more important centers of population in the provinces. In this manner it is expected that within a very few years the great majority of the families of agricultural laborers, and others as well, will have as a supplementary source of income some of the various household industries which offer so profitable employment for the spare time of the women whose household duties require but a comparatively small portion of each day.

In addition to a systematic program of instruction it will be necessary for the government for several years to assist workers in securing proper designs and in marketing the product of their labor; in fact, assist in bringing the exporter and producer together, and while assisting the former in securing qualities and quantities desired, at the same time to secure for the producer a fair share of the ultimate sale price of the article as purchased by the consumer. This service may be rendered, it would seem, by the sales agency under the authority contained in Act No. 2110.

The United States imports annually embroidery and lace to a value of about ₱80,000,000. The import trade of hats, matting, etc., is also large, and, like that in embroidery and lace, is in great part with countries which do not import a corresponding amount of products of the United States. There is no apparent reason why the Philippine Islands should not within a few years produce a large portion of these articles for the United States market, and with the tariff protection which American products have in the Philippine market, a corresponding export trade from the United States to the Philippines would logically result.

#### RELIEF FROM DEPENDENCE UPON FOREIGN-GROWN RICE.

There remains for study and well-considered effort another phase of our economic problem, and that is the increase in our production of rice fully to meet the Philippine demand for that staple.

Assuming that the production of copra, of hemp, of sugar, and of tobacco are more profitable than the production of rice, it is contended by some students of our situation here that all efforts should be devoted to these crops and purchase as necessary rice which may be grown so cheaply in other parts of the Orient. In the discussion of this question, as in that of many others involving economic conditions in this and in other countries, there is much to be said on both sides of the question; but war between Great Britain and France, or involving either one of these powers, would result in a blockade of the ports in their colonies and consequent closing without notice of one or both of the only practical foreign sources upon which the

Philippines may draw for rice, that available for export from other countries being so expensive as to be wholly beyond the purchasing power of the masses here.

There are in the Philippines in the great valleys of Luzon, of Mindoro, of Mindanao, and of the smaller islands, ample areas of public land easily developed into rice plantations of the first class, with excellent water transportation facilities, and so free from forest growth as to be immediately available for rice planting. There are in the Ilocos Provinces, in the southern part of the island of Cebu, in a portion of the island of Bohol, and to a lesser extent in other portions of the Archipelago, congested populations which with great difficulty are striving to produce enough food for their own consumption by the cultivation of exhausted fields and rocky hillsides. If 30,000 families can be induced to abandon their present homes in the districts just mentioned and locate under Government supervision on the public lands described above, the Philippine Islands will cease to send ₱20,000,000 annually to French Indo-China and British Burma, neither of which countries purchases more than a few thousand pesos annually of Philippine products.

As the bureau of education is the logical branch of the Government to undertake the generalization of household industries, it would seem that the bureaus of labor and agriculture logically should, and with certainty of success may, undertake the bringing together of a portion of the labor now devoted to practically unproductive effort and the fertile river valleys of the public domain—which is potentially the rice granary not only of the Philippines but of millions of industrial workers in near-by oriental countries, whose low purchasing power demands cheap rice. Whether machinery and different methods of cultivation may profitably be adopted are problems urging solution.

The intervention of the executive bureau in the matters discussed in this and the preceding sections of this report has been premised upon the somewhat comprehensive view of our economic situation revealed by a constant study of ways and means for increasing the financial resources of provincial and municipal governments, the need for developing a greater tax-paying power in the resident of the islands, be he farm laborer or capitalist, and consequent relative lightening of the tax burden though its weight be increased as stated in pesos and centavos. The popular demand fortunately is for more extensive and efficient public service. Six pesos as compared with ₱3 per capita per annum will secure more than twice as much material results in both extent and efficiency of primary school instruction, public sanitation, means of communication, construction of roads and ports, charities, higher education, and in all other public services the people desire and should have.

### ELECTIONS.

Hitherto elections have been held on the first Tuesday after the first Monday in November, the day when Federal elections are held in the United States, but by act of Congress approved February 15, 1911, the term of office of Delegates to the Philippine Assembly was made four years, beginning October 16, 1912, and the Legislature was given the right to fix the date for the commencement of its annual

sessions. The legislature selected October 16 as the date by Act No. 2045, and as this made the former date for elections inconvenient, the same act fixed the date for future elections as the first Tuesday of June, 1912, and the same date every fourth year thereafter. By the same act the terms of office of elective provincial and municipal officers were made the same as those of the Delegates.

Elections were accordingly held June 4 for Delegates to the Philippine Assembly, and provincial and municipal elective officers in all the regularly organized provinces, for Delegates in Batanes, Mindoro, and Palawan, and for Delegates and two members of the municipal board in the city of Manila. The elections passed off quietly and peaceably, there being few disturbances and none serious, although party and factional feeling was intense.

Notwithstanding this was the third election held under the present law, which is as simple as possible in operation, much difficulty was found in its actual operation by election inspectors, and at the date of writing this paragraph, September 14, statistics are still wholly wanting from two provinces, from 75 out of 738 municipalities and townships, and partially wanting from 74 municipalities. This is due to the inveterate habit of inspectors of locking the registry lists into the ballot boxes after finishing the count, although the lists themselves show a warning, in large type in both Spanish and English on the covers, not to lock them in the boxes. They ignored this warning in over half the precincts and had to reconvene and extract the lists long after the election.

There was much difficulty and delay also in counting the ballots.

The table herewith shows the details so far obtained. The registration, the largest yet recorded, shows a large increase over that of 1909, and included about 3.5 per cent of the census population of the territory holding elections. There were actually cast about 96 per cent of the registered votes, or 3.3 per cent of the population.

Although the educational qualification for voting is not high—consisting only of ability to speak and write either English or Spanish—the proportion of electors shown to possess this degree of education, including the city of Manila, where 86 per cent were literate, was very nearly but not quite one-third of those registered. In the provinces alone but 30 per cent were educated. This lack of education required a large number of ballots to be prepared by the inspectors, a proceeding which opens the door to fraud and which is known to be one of the chief reasons for the large number of protested elections, which was 240. The proportion of literate electors to the population in the territory affected was 1.47 per cent.

The accompanying table shows the party affiliations of the successful candidates.

In the absence of complete data, statistics from so many municipalities being still lacking, further discussion of matters under this head will not be attempted in this report.

## Election statistics.

Provinces.	Candidates presented by political parties.	Candidates independent of political parties.	Persons voted for who failed to file certificates of candidacy.			Persons presented for registration.	Persons accepted for registration by board of inspectors.	Persons not accepted by board of inspectors.	Persons challenged.	Persons appealed to provincial boards, courts of first instance, or justices of peace.	Persons whose registrations have been ordered by provincial boards or courts.	Office qualifications.	Property qualification.	Educational qualification.	Office and property qualifications.	Office and educational qualifications.	Property and educational qualifications.	Office, property, and educational qualifications.	Total registered.	
			Delegates.	Governors.	Third members.															
Albay.....	349	2				9,975	9,924	51	4	279	1	60	427	1,229	660	95	15	64	36	9,923
Ambohimangina.....	223					7,342	7,212	130	349				2,352	1,139	1,932	22	8	3	1	6,923
Antique.....	3					3,075	3,059	16					640	150	542					3,059
Bataan.....	108					1,743	1,725	16	64				248	150	883	61	8	35	41	1,688
Batanes.....	451					9,066	9,056	16	16	9			41	252	144					437
Batangas.....	240					3,271	3,219	52	131	128	60	21	3,702	2,291	2,333	274	53	190	160	8,993
Bohol.....	707					10,997	10,949	48	83	23	68		1,620	2,243	2,154	52	23	374	72	10,912
Bulacan.....	377					8,189	7,883	308	105	2			5,642	1,968	2,064	546	226	374	72	8,062
Cagayan.....	340					7,772	7,742	30	36				476	2,005	4,237	60	199	322	123	7,892
Capiz.....	469					9,905	9,745	180	261	241	169		1,732	3,700	1,616	174	182	99	113	9,745
Cavite.....	1					12,166	11,801	353	220	13			1,901	2,256	5,035					9,745
Cebu.....	374					6,758	6,698	60	18	12			3,506	1,333	4,672	113	210	80	83	11,797
Iloos Norte.....	89					8,905	8,905	62	179	33	6		934	1,930	2,457	129	38	125	63	8,704
Iloos Sur.....	176					20,602	20,225	377	674	4			2,288	3,337	2,622	216	155	214	36	19,807
Iloilo.....	551					4,779	4,740	39					7,553	2,553	9,105	95	123	23	66	19,807
Isabela.....	115					8,213	8,155	48	3	40			101	437	3,478	10	121	405	157	4,740
Laguna.....	74					6,211	6,137	14	4	2			2,748	3,339	2,116	67	7	86	15	6,199
La Union.....	134					14,274	14,066	178	266	1			1,117	1,117	1,764	86	61	111	26	13,982
Leyte.....	24					10,515	10,505	8	1	1			2,419	2,360	2,579	86	30	116	22	10,509
Manila.....						1,208	1,208	8	1				982	380	8,963	38	13	7	3	1,208
Mindoro.....	85					2,516	2,516	82	9				820	217	638	59	207	182	86	2,514
Misamis.....	31					2,503	2,503						1,883	2,062	1,290					6,235
Nueva Ecija.....	355					8,907	8,907	80	16	16			1,628	621	812					8,740
Oriental Negros.....	519					3,078	3,043	36	245				1,628	621	812					2,981
Palawan.....	17					654	650	24	83	89			377	37	137	1	21	3	9	585
Pampanga.....	213					6,343	6,317	26	1				2,707	1,046	1,539	307	63	260	92	6,316
Pangasinan.....	204					18,448	18,357	91	16				3,874	5,983	3,869					18,341
Rizal.....	193					8,069	8,065	24	7	19			1,083	3,673	2,894					8,035
Samar.....	51					6,553	6,316	237	130	106	32		1,964	965	2,063	199	354	227	117	6,236
Sorsogon.....						5,259	5,259						1,041	965	2,063	375	379	265	256	5,259
Surigao.....	244					1,374	1,361	13	28				1,492	2,968	343	76	82	10	41	1,355
Tarlac.....	82					12,898	12,810	68					1,492	2,968	343	76	82	10	41	1,355
Tayabas.....	327					2,899	2,839	30	3				2,745	1,900	2,162	267	47	13	19	12,803
Zambales.....	31							30	3				523	412	1,554	84	54	88	29	2,839
Total.....	3,837	8,198	648	475	1,085	282,456	249,805	2,651	3,137	968	881		61,815	90,533	81,916	3,391	2,697	3,467	1,748	248,154

## Election statistics—Continued.

Provinces.	Voters who had their ballots prepared for them.		Persons who voted.	Votes obtained by political parties.				Candidates whose elections have been contested in courts.		Decisions of courts.					Candidates whose elections still undecided.	Remarks.
	Illiterate.	Physical defects.		Progressista.	Nacionalista.	Independiente.	Unknown.	Protests dismissed.	Elections annulled.	Protests in which court decided tie.	Recount ordered and result changed thereby.					
Albay.....	2,750	1,064	9,805	431	4,417	3,578	1,379	18	9	5	1	2	6	.....	Qualifications of electors in 15 municipalities and data of illiterate voters in 2 municipalities missing.	
Ambos Camarines.....	1,406	.....	6,689	.....	4,159	967	1,563	11	7	.....	1	2	.....	1	Qualifications of electors in 3 municipalities and data of illiterate voters in 12 municipalities missing.	
Antique.....	606	369	2,913	123	1,410	.....	.....	3	.....	.....	.....	.....	.....	3	Qualifications of electors in 5 municipalities missing.	
Bataan.....	103	73	1,618	.....	1,568	.....	50	1	1	.....	.....	.....	.....	.....	Qualifications of electors in 15 municipalities and data of illiterate voters in 2 municipalities missing.	
Batanes.....	83	8	418	234	1,277	54	3	.....	.....	.....	.....	.....	.....	.....	Qualifications of electors in 3 municipalities and data of illiterate voters in 12 municipalities missing.	
Batangas.....	103	54	8,665	391	8,274	.....	.....	7	5	.....	.....	.....	.....	2	Qualifications of electors in 15 municipalities and data of illiterate voters in 2 municipalities missing.	
Bohol.....	1,069	46	3,005	.....	1,586	1,419	.....	2	1	.....	.....	.....	.....	1	Qualifications of electors in 15 municipalities and data of illiterate voters in 2 municipalities missing.	
Bulacan.....	780	596	10,246	.....	7,977	1,756	513	7	3	.....	.....	.....	.....	4	Qualifications of electors and data of illiterate voters in 1 municipality missing.	
Cagayan.....	1,303	271	7,113	2,797	3,463	.....	391	36	33	2	1	2	.....	.....	Qualifications of electors and data of illiterate voters in 1 municipality missing.	
Capiz.....	2,244	156	7,307	2,254	4,294	755	.....	16	5	2	.....	1	2	8	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.	
Cavite.....	.....	.....	9,396	190	4,720	4,486	.....	2	1	.....	.....	.....	.....	1	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.	
Cebu.....	2,724	739	10,779	.....	5,342	4,210	1,227	45	11	1	2	.....	1	31	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.	
Iloocos Norte.....	1,734	117	5,514	853	3,522	1,139	.....	9	5	.....	.....	.....	.....	3	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.	
Iloocos Sur.....	1,511	332	8,331	1,850	3,902	2,599	.....	32	16	6	.....	2	13	1	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.	
Iloilo.....	4,704	622	17,358	8,314	9,044	.....	.....	26	21	.....	.....	.....	.....	5	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.	
Isabela.....	209	15	4,594	1,729	2,121	744	.....	7	6	1	.....	.....	1	.....	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.	
Laguna.....	825	45	7,991	2,378	3,880	2,378	.....	9	4	.....	.....	.....	.....	4	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.	
La Union.....	1,244	150	6,105	2,149	3,379	577	.....	3	3	.....	.....	.....	.....	.....	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.	
Leyte.....	2,478	561	13,252	295	9,188	3,769	.....	21	18	1	.....	.....	.....	1	Qualifications of electors in 1 municipality and 22 electors in another and data of illiterate voters in all municipalities missing.	

	7	6	5	4	3	2	1	1	798	763	6,379	1,676	9,607	7
Manila.....									12		1,334		1,146	
Mindoro.....													2,268	
Misamis.....	467									1,729	569		2,268	
Nueva Ecija.....	968	119	5,073	2,280	2,501				292				8,071	
Occidental Negros.....	1,126	187	8,071	1,414	4,480				11					
Oriental Negros.....	138		2,963	1,564	984				145					
Palawan.....	251	22	2,583	83	462				8					
Pampanga.....	833	1,020	5,881	362	1,024				4					
Pangasinan.....	3,787	660	17,332	3,453	8,636				30					
Rizal.....			7,664	1,763	2,158				10					
Samar.....	1,576	302	6,004	237	1,959				10					
Sorsogon.....			6,643		5,837				17					
Surigao.....	339	151	1,196	630	562				4					
Tarlac.....	1,221	159	5,609	470	4,600				7					
Tayabas.....	1,420	176	12,245	577	1,718				19					
Zambales.....	204	34	2,728		2,728				2					
Total.....	37,226	8,046	235,786	37,842	124,753				451					
									25					
									6					
									17					
									35					
									183					

Parties.	Delegates, Philippine assembly.	Provincial governors.	Members, municipal board, city board of Manila.	Third members, provincial board.	Grand total.
Nacionalista.....	55	21	1	19	96
Progradata.....	11	5		5	21
Liga Popular Nacionalista.....	3				3
Independiente.....	7	3	1	6	17
Nacionalista-Independiente.....	2	1		1	4
No record.....	3	1			4
Total.....	81	31	2	31	145



## COMPARATIVE DATA CONCERNING PERSONNEL.

## APPOINTMENTS.

The Governor General made 701 appointments and designations, 427 of whom were of justices and auxiliary justices of the peace. Six of the former and 11 of the latter declined to serve. Fourteen provincial officers resigned to become candidates for election as Delegates to the Philippine Assembly and for other provincial offices. One hundred and seven justices and auxiliary justices of the peace also resigned for electoral reasons. Two hundred and sixty-five justices and auxiliary justices of the peace and one insular official were relieved from office. The following table gives the details in full:

	Appointments by Governor General and the Commission.	Appointments canceled by Commission.	Appointments and designations by Governor General only.	Declinations.	Resignations.	Reliefs.	Removals.	Deaths.
Insular officers, including judges and officers of the Bureau of Navigation.....	64	.....	6	.....	3	1	.....	2
Provincial officers.....	28	.....	42	.....	23	.....	.....	1
City of Manila.....	8	.....	5	.....	1	.....	.....	.....
City of Baguio.....	.....	.....	4	.....	.....	.....	.....	.....
Municipal officers.....	.....	.....	110	.....	.....	.....	63	36
Justices of the peace.....	333	1	.....	6	97	215	17	5
Auxiliary justices of the peace.....	94	1	.....	11	138	52	9	5
Candidates and alternates, West Point.....	2	.....	.....	.....	.....	.....	.....	.....
Total.....	534	2	167	17	263	266	99	43

<sup>1</sup> 14 provincial officers resigned to become candidates for election as Delegates to the Assembly and for other provincial offices.

<sup>2</sup> 23 justices of the peace resigned to become candidates for municipal offices, 3 for Delegates, and 1 for Governor.

<sup>3</sup> 79 auxiliary justices of the peace resigned to become candidates for municipal offices, 1 for Delegate, and 1 for Governor.

## REMOVALS AND OTHER DISCIPLINARY ACTION AFTER INVESTIGATION OF CHARGES.

Of the 230 municipal officials, justices, and auxiliary justices of the peace against whom charges were brought during the year, 197 were found guilty, and 33 were either found not guilty or the papers thereof filed without action by the Governor General. Seventy-three of those found guilty were removed from office, 16 were removed and disqualified from holding office, the resignations of 6 were requested or accepted, and 102 were warned, reprimanded, or suspended. The number of officers tried and the number found guilty and not guilty is shown in detail in the following table:

TABLE No. 1.

Disposition, etc.	Presidents.	Vice presidents.	Secretaries.	Treasurers.	Councillors.	Justices of the peace.	Auxiliary justices of the peace.	Inspectors of election.	Chiefs of police.	Sergeants.	Police-men.	Lieutenants of barriors.	Total.	Grand total.
<b>Cases tried:</b>														
Officers suspended pending final decision .....	35	13	2	2	89	17	8		4	1	6	2	173	
Officers not suspended pending final decision .....	16	3			23	7	2	1	2				52	
<b>Total</b> .....	51	15	2	2	111	24	10	1	6	1	6	2	230	230
<b>Action taken:</b>														
<b>Found guilty—</b>														
Removed and disqualified from holding public office .....	6	1		1	2	2	3		1				16	
Removed .....	12	7			27	16	6		1	1	3	1	73	
Resignation required or accepted .....	1				1	4							6	
Warned, reprimanded, suspended, or otherwise disciplined .....	23	3	2	1	67	1	1		3		2	2	102	
No punishment owing to expiration of term. % .....														
<b>Total</b> .....	41	11	2	2	97	22	10		5	1	5	1	197	197
<b>Found not guilty—</b>														
Reinstated or continued in office .....	7	3			8	2						1	21	
Not reinstated owing to expiration of term .....														
Charges dismissed .....	3	1			5								9	
<b>Total</b> .....	10	4			13	2						1	30	30
<b>Filed without action by the Governor General.</b>														
Total number of cases disposed of .....	51	15	2	2	110	24	10	1	5	1	5	2	227	
<b>Grand total</b> .....	51	15	2	2	111	24	10	1	6	1	5	2	230	230

TABLE No. 2.

	Neglect of duty.	Abuse of official position.	Ignorance and ineptness.	Bad habits and immorality.	Extortion.	Larceny and bandolerismo.	Misversion and breaches of trust.	Bribery and kindred crimes.	Forgery and falsification.	False arrest.	Crimes of violence.	Violation of law (election etc.), executive orders and municipal ordinances.	Slander, disrespect, and use of bad language.	Interference in religious affairs.	Perjury.	Total.	Grand total.
<b>Guilty:</b>																	
Presidents.....	18	16	1	1	2	.....	2	.....	4	5	3	2	.....	5	1	66	.....
Vice presidents.....	4	3	.....	.....	.....	.....	.....	1	2	.....	.....	.....	.....	.....	.....	13	.....
Secretaries.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....
Treasurers.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	.....
Councillors.....	69	16	.....	.....	.....	.....	1	14	.....	.....	.....	.....	.....	.....	2	127	.....
Justices of the peace.....	.....	13	2	2	.....	.....	4	.....	.....	1	1	2	.....	11	.....	34	.....
Auxiliary justices of the peace.....	2	.....	.....	1	.....	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	14	.....
Inspectors of election.....	2	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	.....
Chiefs of police.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Sergeants.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Police-men.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	.....
Lieutenants of barrios.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
<b>Total.....</b>	<b>110</b>	<b>57</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>3</b>	<b>14</b>	<b>19</b>	<b>6</b>	<b>9</b>	<b>4</b>	<b>29</b>	<b>.....</b>	<b>19</b>	<b>3</b>	<b>265</b>	<b>265</b>
<b>Not guilty:</b>																	
Presidents.....	20	4	.....	1	2	.....	4	1	1	3	4	6	.....	2	.....	38	.....
Vice presidents.....	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	.....
Secretaries.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Treasurers.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Councillors.....	4	6	.....	.....	.....	.....	1	.....	.....	2	.....	2	.....	.....	.....	13	.....
Justices of the peace.....	3	1	.....	1	.....	.....	3	.....	.....	.....	.....	.....	1	.....	.....	12	.....
Auxiliary justices of the peace.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Inspectors of election.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chiefs of police.....	1	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	3	.....
Sergeants.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Police-men.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lieutenants of barrios.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
<b>Total.....</b>	<b>23</b>	<b>14</b>	<b>.....</b>	<b>2</b>	<b>3</b>	<b>.....</b>	<b>9</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>5</b>	<b>9</b>	<b>1</b>	<b>2</b>	<b>.....</b>	<b>75</b>	<b>75</b>

No action:																
Presidents.....																
Vice presidents.....																
Secretaries.....																
Treasurers.....																
Councillors.....																
Justices of the peace.....																
Auxiliary justices of the peace.....																
Inspectors of election.....																
Chiefs of police.....																
Sergeants.....																
Police-men.....																
Lieutenants of barrioe.....																
Total.....			2									1		2		5
Grand total.....	132	73	2	6	9	8	23	20	7	15	10	40	1	21	3	365

The foregoing table (No. 2) shows the nature and result of the 365 charges brought against the 230 officers referred to in the next preceding table. The totals of the two tables do not coincide for the reasons that an officer is frequently charged in the same case with several different offenses, found guilty of some, and acquitted of others. The number of the charges shown by Table No. 2 has decreased by slightly more than 11 per cent as compared with the preceding fiscal year, and the number of officers against whom charges were brought has decreased by about 9 per cent. The number of charges for neglect of duty has again increased this year, being about 32 per cent more than the preceding year. On the other hand, the number of charges for abuse of official position or authority has decreased by slightly more than 33 per cent. At the close of the year there were 34 cases on hand on which final action had not been taken.

#### PROVINCIAL PERSONNEL.

The following table shows the number and nationalities of provincial officials in office on June 30, 1912, the number of provinces and the percentage of total of American and Filipino provincial officers:

##### *Provincial officers..*

	Ameri- cans.	Fili- pinos.	Total.
Governors.....	7	31	38
Treasurers.....	22	11	33
Secretary-treasurers.....	3	1	4
Supervisor-treasurers.....	1		1
Secretaries.....	1		1
Supervisors.....	1		1
Third members.....		20	20
Fiscals.....	1	27	28
Lieutenant governors.....	8	7	15
Total.....	44	97	141

Percentage of total:	
Americans.....	31.20
Filipinos.....	68.80

Provinces organized under Act No. 83.....	31
Provinces organized otherwise.....	7
Total.....	38

#### MUNICIPAL PERSONNEL.

The number of municipalities, townships, and settlements on June 30, 1912, and of municipal and township officers, and the percentage of the total of American and Filipino municipal and township officials are shown in the following table:

*Municipal and township officers.*

	Ameri- cana.	Fili- pina.	Total.
Presidents.....	5	803	808
Vice presidents.....	3	805	808
Secretaries.....		620	620
Treasurers.....		620	620
Secretary-treasurers.....	1	187	188
Councillors.....	18	7,106	7,124
Justices of the peace.....	20	492	512
Auxiliary justices of the peace.....	4	218	222
Notaries public, including city of Manila.....	81	1,332	1,413
Total.....	132	12,183	12,315
Municipalities.....			725
Townships.....			83
Settlements.....			1,188
Total.....			1,991
Percentage of total:			
Americans.....			1.07
Filipinos.....			98.93

The table showing the percentage of the total of American and Filipino provincial and municipal officers appearing in the last report is herewith completed to June 30, 1912:

Years.	Provincial officers.					Municipal and township officers, in- cluding justices and notaries public.				
	Americans.		Filipinos.		Total.	Americans.		Filipinos.		Total.
	Num- ber.	Per- cent- age.	Num- ber.	Per- cent- age.		Num- ber.	Per- cent- age.	Num- ber.	Per- cent- age.	
1908.....	86	26.54	238	73.46	324	24	0.17	14,102	99.83	14,126
1904.....	87	37.82	143	62.18	230	44	.39	11,289	99.61	11,333
1905.....	80	24.60	246	75.40	326	58	.50	10,725	99.50	10,783
1906.....	60	24.69	183	75.31	243	68	.63	10,774	99.37	10,842
1907.....	50	34.25	96	65.75	146	88	.77	11,350	99.23	11,438
1908.....	49	32.66	101	67.34	150	82	.69	11,760	99.31	11,842
1909.....	47	31.54	102	68.46	149	81	.66	12,275	99.34	12,356
1910.....	39	27.86	101	72.14	140	102	.81	12,417	99.19	12,519
1911.....	43	29.25	104	70.75	147	106	.84	12,685	99.16	12,733
1912.....	44	31.20	97	68.80	141	122	1.07	12,183	98.93	12,315

The reason for the apparent increase in the percentage of American provincial officials is that there were 11 offices of third members of provincial boards, all formerly held by Filipinos, vacant at the end of the present fiscal year, the incumbents thereof having resigned their respective offices to become candidates for other elective offices at the general election held on June 4, 1912. The vacancies thus created had not as yet been filled at the time this report was being prepared. Had these been filled by Filipinos, as they all will be, the percentage of Filipino officers would have been 71.05 per cent.

Of the American provincial officers, one-half, or 22, are provincial treasurers, 7 are governors of specially organized provinces, and 8 are lieutenant governors of subprovinces. The number of Americans reported in the above comparative table as officials other than provincial officials include 81 notaries public in Manila and in the provinces and 24 justices or auxiliary justices of the peace in the Moro

Province, Mountain Province, Province of Mindoro, or on military or naval reservations. There are six American municipal officials in municipalities organized under Act No. 82, the remainder being appointive municipal officers in the Moro Province.

### PROVINCIAL AND MUNICIPAL AFFAIRS.

#### NEW LEGISLATION AFFECTING PROVINCIAL AND MUNICIPAL GOVERNMENTS.

The Second Philippine Legislature during its second session, October, 1911, to February, 1912, enacted the following laws of direct interest to provincial and municipal governments which are organized under the provincial and municipal government acts:

Act No. 2083 authorizes the Governor General to loan to provinces and municipalities for the construction of public works, more particularly those of a revenue-producing character, a certain portion of the gold-standard fund created by Act No. 938.

Act No. 2091 creates the office of fiscal for the Province of Batanes.

Act No. 2096 distributes the taxes paid by holders of franchises between the insular government and the provinces and municipalities within which the franchises are operated.

Act No. 2099 exempts from the penalty imposed for failure to brand and register large cattle those persons who voluntarily present animals owned by them for registration even though the animals are over 2 years old and the owners would therefore have been liable to punishment for failure to register if complaints had been made.

Act No. 2121 creates boards for the purpose of fighting the locust pest. The boards consist in each province of the members of the provincial board and four members appointed by the director of agriculture. Municipal officers are required to assist the locust boards. The boards may require the inhabitants to work in destroying or collecting locusts. The regulations must be approved by the director of agriculture who is authorized to allot from an appropriation of ₱15,000 per annum such sums to the provinces as may be necessary.

Act No. 2123 authorizes provincial boards to make appropriations to pay wages for not to exceed 90 days, and medical attendance, transportation, and hospital fees to unclassified employees and laborers injured in line of duty, and burial expenses and small gratuities to the families of such employees and laborers as die from injuries so received.

Act No. 2127 authorizes a redistribution of internal-revenue taxes subject to the approval of Congress in accordance with section 5 of the act of that body approved August 5, 1909. Licenses on theaters, museums, cockpits, concert halls, pawnbrokers, circuses, billiard halls, and retail dealers in *tuba*, *bassi*, and *tapuy* go to the municipality. The cedula tax collections are divided in equal moieties between the provinces and municipalities wherein collected. The remaining internal revenue collected from July 1, 1912, is divided, 7 per cent to provincial governments for general purposes and 14 per cent to municipal governments for general purposes also. Of this 14 per cent one-half must be devoted to free public primary schools. The proportionate numbers of non-Christian inhabitants in provinces and

municipalities reduce the percentage specified. In provinces in which a double cedula tax is collected an additional 7 per cent accrues to the road and bridge funds of such provinces. Manila is a province and a municipality under this act.

Act No. 2129. This act authorizes municipal councils to establish registration of mechanics and day laborers. The municipal secretary has charge of the registration. The register is an open public one. Municipal treasurers in towns in which councils have established these registrations shall ascertain when issuing cedula who are mechanics or day laborers and make list of the same. This list is required to be turned over to the secretary to be entered in the registry. When such mechanics or laborers accept work or labor the secretary is required to make memoranda of the principal features of the contract or occupation in his register and when the contract terminates to note that fact. No fees are chargeable. Reports from the secretary are required to the bureau of labor.

Act No. 2131. This act confers upon justices of the peace jurisdiction to try violations of regulations adopted by provincial boards for the suppression of agricultural pests.

Act No. 2146. This act authorizes appropriations by provincial boards of not to exceed ₱40 a month to enable one or two students of the provinces to follow a professional career in the University of the Philippines or any governmental educational institution of Manila. Appointees must be residents of the province, not over 21 years of age and of good conduct and physical fitness. They must have completed one official course in the high school and their parents must be unable to defray the expenses. The board determines the profession or professions for which it will grant the allowance. Applicants are examined by the superintendent of schools of the province. On completing such a course of higher education students are required to perform duties pertaining to their career for the province during a period equal to that in which they received the allowance.

Act No. 2149. This act authorizes municipal councils to license, regulate, or prohibit the keeping of dogs, and the killing of them when at large, and to require owners of cattle, sheep, and goats to keep such animals from running at large unless in charge of some person.

Act No. 2151 authorizes municipal councils to enroll and train auxiliary volunteer firemen not to exceed 10 even where the municipal police are fewer in number. (Heretofore the volunteer firemen could not exceed the number of municipal policemen.)

Act No. 2156 reorganizes municipal boards of health and authorizes provincial boards to divide their provinces into sanitary divisions containing one or more municipalities; for each division a president is appointed by the bureau of health, who must be a qualified physician. He performs his duties under the bureau of health and they are prescribed in detail. A stock of drugs and medicines is required to be kept by each municipality for the use of the sanitary presidents. The expenses are defrayed by the "health fund," which consists of an appropriation of not less than 5 nor more than 10 per cent of municipal general fund and a like sum from provincial funds. Poor municipalities are exempted from providing for these expenses.

Act No. 2157. This act authorizes municipal councils with the approval of provincial boards to grant revocable licenses to con-



struct and operate tramways under certain restrictions and upon the filing by the licensees of the maps or plans of the proposed tramway and the deposit of ₱1,000 to secure completion under the conditions imposed.

Act No. 2159 regulates motor vehicle traffic throughout the Philippine Islands, prescribes regulations for licensing automobiles and drivers, provides penalties, and takes from all inferior entities the authority to issue licenses or to impose fees for the use of automobiles. Municipal councils therefore now have no jurisdiction.

Act No. 2165. This act authorizes persons to cut and take for themselves from the public forests without license and free of charge timber other than of the first group, firewood and forest products necessary for house building, fencing, boat building, and for personal use for the period of 10 years. Timber thus taken may not be exported from the province. The director of forestry with the approval of the secretary of the interior may set aside for the people of municipalities, townships, or settlements suitable forest tracts known as "communal forests" upon which the inhabitants may exercise the privilege described. Where the area of a municipality is large two tracts may be set aside. The tracts are administered by the bureau of forestry. Where no suitable land lies within or near the municipality a tract in the neighborhood may be set aside. For the purpose of building houses of strong material, inhabitants may even cut timbers of the first group, except ebony, camagon, or lanete.

Act No. 2169. This act in 34 sections provides for an efficient police force in each municipality. The director of constabulary is to prepare regulations for the government, discipline, and instruction of police. Members of the force are subject to examination, physical as well as mental. The purpose is to permit only healthy and competent persons to enter the force, and by increasing the pay wherever possible to create an *esprit de corps*, to provide uniforms, etc., and to make the service attractive. The act provides that the Legislature annually shall provide funds for the purpose of assisting in the creation and maintenance of this police force in such municipalities as are unable financially to bear the cost. The appropriation from insular funds is absolutely necessary to carry out the essentials of this regulation, since practically every municipality is now devoting as great a share of its revenue as practicable to the maintenance of police, and the provincial governments are not able to render financial assistance without neglecting other equally important public duties.

Act No. 2170. This act changed the date for the general elections of Delegates to the Assembly and of provincial and municipal officials to the first Tuesday of June, 1912, and provides that these elections shall henceforth take place every fourth year on the same day. The act also grants an appeal from courts of first instance to the supreme court in contests of elections for provincial governors.

Act No. 2171 remits all unpaid taxes on machinery forming a part of real estate which accrued prior to January 1, 1912, and exempts from taxation agricultural machinery being part of real estate which does not exceed ₱200 in value.

## REPORTS OF PROVINCIAL GOVERNORS.

The reports of provincial governors have been submitted to you as received, and the important features touched upon therein have been, I believe, discussed under appropriate heads in this report.

## PROVINCIAL FINANCES.

Direct administrative control is exercised by this office over the 31 regularly organized provinces and the Province of Batanes.

All elective provincial officers (governors and third members) are Filipinos and 13 provinces have Filipino treasurers or acting treasurers.

The fiscal year for provincial governments was changed by Executive Order No. 54, effective June 1, 1912, to coincide with the calendar year, as was recommended in my reports for 1910 and 1911. This makes uniform the fiscal year for both provincial and municipal governments. It is believed that distinct advantage will accrue if the fiscal year for the insular government also be changed to conform with the calendar year.

There was no remission of land tax granted during the year.

The date for the collection of the land tax without penalty was extended from June 1 to June 30 in order that no one who was a qualified elector and registered during the month of May might, by reason of becoming delinquent in the payment of land tax on June 1 and voting at the general elections June 4, become guilty, perhaps unwittingly, of a violation of the election law, which disqualifies delinquent taxpayers as voters.

All provincial governments continued the collection of the ₱2 cedula (poll) tax during the year. The proceeds of this tax were ₱1,778,996 and available solely for the maintenance, repair, and construction of roads and bridges.

The interest-bearing deposits of provincial funds on June 30, 1912, amounted to ₱4,140,250, as compared with ₱3,605,000 on the corresponding date last year.

By reason of the change in the fiscal year hereinbefore mentioned there are not at hand comparative financial statements of provincial governments for the 12-month period ending June 30, 1912, nor for that ending December 31, 1911. However, the report of the insular auditor will undoubtedly contain compiled data available for comparative purposes as well as detailed statements of receipts and expenditures of provincial governments.

The maintenance and construction of roads and bridges have been given preferential attention by provincial governments in accord with the division of activities between insular, provincial, and municipal governments. Detailed information as to the results obtained will be found in the report of the bureau of public works by which maintenance and construction projects have been executed. In Capiz, Iloilo, and Isabela modern provincial buildings have been completed and a reenforced-concrete jail in Iloilo. The reenforced-concrete provincial building, jail, and storehouse at Cabanatuan, which is to be the new capital of Nueva Ecija, are nearing completion, and as soon as ready for occupancy the provincial capital will be transferred to that point from its present location at San Isidro.

Opportunity for much-needed progress in public sanitation seems to have been provided by legislation which has been mentioned under a previous heading in this report and detailed discussion of which I understand is to be found in the report of the director of health.

The Philippine Exposition, held in Manila February 3 to 11, 1912, was participated in by 25 of the regularly organized provinces and 5 special or non-Christian provinces. The provinces taking part were given free space and light in the exposition buildings, and the expenses of transporting exhibits from provincial capitals to the exposition grounds and return were paid from insular funds appropriated for exposition purposes. The then provincial treasurer of Iloilo, Mr. W. W. Barclay, who was on temporary duty with the executive bureau, was detailed as director of the 1912 exposition.- A comprehensive and creditable showing of agricultural and industrial products was made by the provinces. The exhibits, which included the interesting and instructing feature of actual manufacture on the ground of many industrial products, occupied four large buildings and cost approximately ₱50,000. The exposition was in every way a distinct advance over those of previous years and must be of far-reaching value. It seems not unreasonable to anticipate that the information and experience gained in these annual insular expositions will be manifest in the preparation and selection of material for the exhibit of the Philippine Government at the Panama-Pacific International Exposition to be held in San Francisco in 1915.

#### MUNICIPAL FINANCES, EXCEPT THE CITIES OF MANILA AND BAGUIO.

The following is a consolidated statement of municipal receipts and disbursements for the municipal fiscal year, January 1 to December 31, 1911, taken from the report of the bureau of audits:

	General fund.	School fund.	Cemetery fund.	Total.
<b>RECEIPTS.</b>				
Sundry revenue.....	₱1,705,195.59	₱12,379.49	₱14,544.05	₱1,732,119.13
Revenue from taxation:				
Internal revenue—				
Percentage.....	682,907.20	682,837.56		1,365,744.76
Cedula.....	913,458.45			913,458.45
Licenses.....	445,782.76			445,782.76
Weights and measures.....	37,506.08			37,506.08
Cart tax.....	18,360.43			18,360.43
Land tax, 1910 and previous years.....	152,776.73	176,712.23		329,488.96
Land tax, 1911.....	536,834.70	601,536.91		1,138,371.61
Property tax.....	45,128.83			45,128.83
Licenses, municipal.....	545,378.82			545,378.82
Franchise tax.....	2,941.84			2,941.84
Total receipts from taxation..	3,381,075.84	1,461,086.70		4,842,162.54
Other receipts.....	34,689.04	120,004.16		154,693.20
Transfers between funds.....	331.00	316,024.77	2,962.29	319,318.06
Total miscellaneous.....	35,020.04	436,028.93	2,962.29	474,011.26
Total receipts.....	5,121,291.47	1,909,495.12	17,506.34	7,048,292.93
Grand total.....	6,576,355.92	2,790,270.30	52,184.65	9,418,810.87

	General fund.	School fund.	Cemetery fund.	Total.
<b>DISBURSEMENTS.</b>				
<b>Administration:</b>				
Salaries of—				
Officers and employees.....	P1,631,503.60	P1,297,402.19	P718.86	P2,929,624.65
Police, jailers, and guards.....	889,192.28			889,192.28
Maintenance of—				
Police, jailers, and guards.....	96,841.08			96,841.08
Prisoners.....	78,376.66			78,376.66
Rentals.....	44,327.26	56,746.39		101,073.64
Office expenses.....	192,789.66			192,789.66
Traveling expenses.....	18,248.11			18,248.11
Incidental expenses.....	282,392.02	26,510.13		308,902.15
Justice.....	180,604.15			180,604.15
Interest on bonds and loans.....	17,106.04	582.09		17,687.13
Operation telephones.....	671.83			671.83
Industrial operation expenses.....	879.07	36,626.82		36,504.89
Total administration.....	3,432,936.75	1,416,866.62	718.86	4,850,522.23
Maintenance roads, bridges, buildings, etc.....	469,512.65	34,469.21	11,737.67	505,719.53
Total expense operation.....	3,902,449.40	1,451,335.83	12,456.53	5,366,241.76
<b>Permanent improvements:</b>				
Roads, bridges, buildings, and cemeteries.....	501,645.55	484,896.98	1,377.11	987,921.64
Equipment.....	198,852.92	42,619.19	40.00	241,512.11
Total permanent improvements and equipment.....	700,498.47	527,516.17	1,417.11	1,229,431.75
<b>Miscellaneous credits:</b>				
Repayment of loans.....	77,837.03	10,437.50		88,274.53
Transfers between funds.....	218,987.06		331.00	219,318.06
Balance Dec. 31, 1911.....	1,586,583.96	800,978.80	87,980.01	2,425,542.77
Total miscellaneous credits.....	1,983,408.05	811,416.30	38,311.01	2,833,135.36
Grand total.....	6,576,365.92	2,790,270.30	82,184.65	9,418,810.87

Deducting the transfers between funds, the net amount available for expenditures was P9,099,492.81, a gain of P59,001.11 over the preceding year. Comparison with the statement for the preceding year shows a gratifying increase in expenditures for permanent improvements.

The constantly increasing burden laid on municipal governments, by reason of better organization and more up-to-date methods, carries with it an increase in the expense of administration. As mentioned in my report for 1910, and repeated in 1911, the rate of municipal taxation is absolutely inadequate to properly maintain a satisfactory system of government. To meet the changed conditions, municipalities should be authorized, in their discretion, to impose additional local taxation, and they should participate to a larger extent in revenues now insular.

#### LOANS TO PROVINCES AND MUNICIPALITIES.

The problem of financing the construction of municipal and provincial public works including particularly water-supply systems, school houses and other necessary public buildings, sanitary markets, permanent bridges and roads, seemed in great part to have been provided for by the authority contained in an act of Congress for the issue of bonds. In practice, however, it was found that rarely a project of immediate need and within the financial resources of the municipality concerned demanded a sum of money sufficient to warrant the

expenditure of time of both the legislative and executive branches of the government necessary to authorize and to complete the other preliminaries incident to a bond issue, which in amount would be so small as to be of doubtful interest to investors in such securities. Accordingly in 1907 a beginning was had in financing these projects by the investment of trust funds which the insular government had on deposit with banks in the United States or in the vaults of the insular treasury, and which, by their nature, could not be required for a long period of years as in the case of sinking funds. These investment loans to provincial and municipal governments had been made only after careful examination by this office of the project both from the standpoint of investment and from that of the public interest to be served. The necessary and duly authenticated documentary evidence of the indebtedness and of all conditions regarding expenditure of the loan and of the payment of interest and repayment of principal to the insular government, is executed in each instance before the funds are placed to the credit of the borrowing provincial or municipal government, and no precaution is omitted in each transaction which good business practice requires. In no instance has any default occurred in the payment of interest, payable quarterly, or on principal account, annual payments.

On July 1, 1911, the total amount of loans to provincial and municipal governments was ₱1,345,244.97. During the year new loans placed increased the total of these investments to ₱3,795,079.94. This increase was made possible by the provisions of Act No. 2083 which authorizes the insular treasurer, with the prior approval of the Governor General, to invest not to exceed 50 per cent of the gold standard fund "in loans for periods not to exceed 10 years to provinces and municipalities to aid in the construction of public works, particularly those of a revenue-producing character, at 3 per centum interest per annum." This made available approximately ₱9,000,000, of which one-half is temporarily set aside for construction loans to the Manila Railroad Co. Therefore, approximately ₱4,500,000 became immediately available for loans to provincial and municipal governments. It is to be noted that loans from the gold standard fund may be made for periods not exceeding 10 years, and the interest rate is fixed at 3 per cent. Special funds previously made available for such loans were limited to 2 years in the case of the insurance fund, and to 5 years for other funds, and the annual rate of interest to 4 per cent. It is apparent that the investment of the special funds of the government in these loans is productive of greater interest earnings than could ordinarily be obtained on fixed bank deposits and the requirements enforced in placing these loans make them quite as conservative investments as would be Government bonds, which in effect their securities are. Upon the enactment of the statute making available a portion of the gold standard fund for investment as stated above, a representative of the executive bureau was assigned to the special duty of investigating each project for which loan application had been received and has given practically his entire time to this work in the field.

Loans have been made to provincial governments in considerable sums to provide for the construction of permanent roads, thereby advancing by from one to two years the progress of this work, which is carried out in accord with the general scheme of the bureau of public works. These loans also were to a degree relief measures to

provide employment for labor in those districts where the last rice crop was a partial or complete failure, and are payable within 18 months from date of approval. Loans for the construction of bridges have been confined to those projects of great urgency and of concrete or steel construction to be executed by the bureau of public works. The cost of many of these projects will be less than the annual saving to the planters and merchants by reason of the reduced cost of freight and passenger transportation by the customary types of wheeled vehicles, and the consequent increased use of motor vehicles.

Applications for loans for road and bridge construction are taken up with the director of public works and his views are considered before definite action is taken by this office. Applications for loans for erecting school buildings are similarly taken up with the director of education.

Loans to municipalities for the construction of modern sanitary markets are given preferential consideration in accord with the terms of the statute authorizing loans from the gold standard fund, which requires that public works "of a revenue producing character be given preferential attention." The public market in each city and village in these islands is an institution, the importance of which as a factor in the daily life of the people can hardly be understood without personal study on the spot.

The greater number of the markets of the Philippine Islands have been of bamboo or wood and thatch construction, without floors, and generally insanitary. The majority of them have been let by municipalities to contractors and the result naturally has been that the contractor bent all his efforts toward securing immediate profits, and practically nothing has been expended on the upkeep and sanitation of the market. The modern markets now being constructed are of reenforced concrete, with concrete floors, and facilities for perfectly cleansing them. They are open on all sides and free ventilation is assured.

Particular attention is given to the selection of sites for modern markets, a representative of the bureau visiting a municipality before the project is determined and aiding the municipal officials in their selection of a site and of the class of buildings best adapted thereto. Among the requirements for a market site are that it contain at least 1 hectare (2.471 acres) of land and have certain distinct boundaries and good drainage, and be so situated as to be convenient for both buyers and sellers. The general plan followed for market building provides for one or more central buildings of from 12 to 30 meters in width, and length suitable for the site, the main building being encircled by small bazar stalls or stores facing the central building. The buildings are constructed with concrete floors and pillars, trusses of wood or steel, and roofs of galvanized iron or tile. The stalls and stores are so arranged that they may be closed and securely locked. All entrances to modern markets are provided with iron gates, to be closed at night. In the markets of the old types persons renting space therein were permitted to use their stalls as dwellings. In the new markets no one but the caretaker may stay within the inclosure at night. It will be seen that this change in itself tends to better hygienic and sanitary conditions.

A feature of modern market construction, second only to the expected improvement in general health conditions, is found in the

increased revenue accruing to the municipality in every case where modern markets of approved type have been installed. In the case of San Pablo, Laguna, a loan was made to the municipality for the construction of a modern market which was opened to the public on June 8, 1910, and cost ₱24,000. The receipts from the old market were ₱2,160 per year. The receipts from the new market are at the rate of ₱12,392 per annum, an increase of ₱10,232 per annum, or 473 per cent. The increase in the annual income from the present market is 42 per cent of the investment, and it will be noted that the municipality could repay the cost of the modern building, ₱24,000, in two years from the market receipts alone. The loan, however, was granted for 10 years, and the municipality is now contemplating the installation of a water-supply system estimated to cost ₱85,000 for which a loan for a period of 10 years will be granted. This loan can be repaid from the market receipts.

The municipality of Angeles, Pampanga, in 1908 and 1909 received from its substantial old-style market building an average annual revenue of ₱4,091. In October, 1909, a new modern concrete market building, costing ₱9,145 was opened to the public, and the market receipts for the following year amounted to ₱5,419, a gain of ₱1,328, or 32 per cent, in the annual market income. This gain constitutes a return of 14 per cent on the money invested.

In the municipality of San Fernando of the same province, receipts from the old-style market for the fiscal year ending June 30, 1909, amounted to ₱3,590. On July 1, 1909, two modern reinforced concrete market buildings, costing together ₱19,679, were opened to the public, and the receipts for the following year amounted to ₱6,472, an increase of ₱2,882, or 80 per cent. This increase constitutes 14 per cent on the investment.

In 1906 the municipality of Pagsanjan, Laguna, received from its former market ₱3,001. In November of the following year a new concrete market building, costing ₱19,531, was opened to the public. The average market income for the subsequent four years was ₱5,961, excluding 1910, when the market was rented by contract and but ₱4,551 were received therefor. The increase in market revenues amounted to ₱2,960, or 98 per cent. This modern market is paying 30 per cent on the money invested, and the increased revenue amounts to 15 per cent of the investment.

The municipality of Iloilo, Province of Iloilo, has a modern reinforced concrete market, opened to the public on January 15 of the present year, which cost ₱69,302. The average receipts from the former market for the years 1909, 1910, and 1911 were ₱13,057. Receipts from the new market, based on collections from January 15 to June 15 of the present year, will be ₱25,629, or an increase of ₱12,572, 96 per cent more than the revenue heretofore. The increased market earnings amount to 18 per cent on money invested.

These cases are typical. Increased market revenue means to the municipality an increased borrowing capacity which permits the erection of school houses, water works, municipal buildings, the construction of first-class streets and bridges, and other improvements; the payment of adequate salaries to teachers in primary schools; and other advances in municipal public service.

It is the intention, when nearby towns have recognized market days, to encourage the arrangement of the daily markets in such

order that it will be possible for producers to make regular rounds of the markets from town to town. With the many first-class roads now being completed throughout the provinces, this will gradually build up arteries of trade and the general prosperity of the country will inevitably increase.

An important feature of the municipal market is its effect on the economic condition of the people as a whole. It is the expressed opinion of many uninformed persons that even the local trade of the Philippine Islands is in the hands of persons other than Filipinos, and that the Filipino has neither the business capacity nor the desire to take into his own hands the trade of his country. That this is untrue becomes apparent to any observer of conditions in municipal markets, in some of which in the Province of Iloilo the daily sales amount to as high as ₱20,000.

Practically the entire business of the markets is conducted by Filipinos.

The largest municipal water-supply system outside of the city of Manila, the Osmeña water-works system of Cebu, was formally opened on February 13, 1912, and much serious interest has been aroused in other municipalities in securing potable water for domestic use either from artesian wells or by gravity supply from streams or springs on the adjacent mountains or foothills. The advantages resulting from the standpoint of public health, low insurance rates, and in many other ways are so obvious that discussion of the desirability of devoting public funds at the earliest possible date to the supply of potable water seems quite unnecessary. One instance of the immediate financial value of an adequate water supply for reducing the fire risk, however, is so significant that it seems worthy of mention: The case of the municipality of Cebu where during the past 10 years the total loss of buildings and contents burned is estimated at ₱10,000,000, and during that period insurance rates increased from 2.4 per cent to 3.5 per cent and some insurance companies withdrew entirely. It is estimated that the saving to property owners in fire-insurance premiums by reason of reduced rates, once the new water system is in full operation, will approximate ₱100,000 per annum. The total cost of installing the water supply was ₱550,000, and the cost of operation will be nominal. In the report of the bureau of public works will doubtless be found detailed data regarding the Osmeña water works and other projects constructed and under construction during the year.

The greater facilities now at the command of the Governor General for the execution of permanent improvement projects have afforded opportunity for the undertaking of systematic effort in those phases of municipal improvement which come within the class of public works as distinguished from political administration. There is in process of formation in this office a section which will devote itself to the encouragement and assistance of municipal governments in the formulation of a definite program for the location and construction, as funds become available in future, of public buildings, layouts for streets, playgrounds, and other public places of proper areas and locations. It is hoped that in addition to the material results for which direct effort may be made there will result distinct betterment in the general efficiency and tone of municipal administration and urban life, from the direct pursuit of which the insular and provincial



governments are to a great degree inhibited by the autonomy granted to municipalities by organic law under which they are constituted.

Through the kind offices of the Bureau of Insular Affairs, there has been obtained and arrangements made for continuing to secure the best literature available on the subject of municipal betterment in the United States and in Europe. Decided interest is evidenced already in many municipalities and the circulation of periodicals and other literature pertinent to the subject is beginning to attract attention. Each provincial treasurer, the officer having immediate supervision of provincial finance, and many municipal treasurers now receiving periodicals devoted to the subject under discussion. With the present trend it seems reasonable to believe that relatively as great interest will soon be taken in these islands in the improvement of municipal government and civic progress as in other countries of the civilized world. The hope for positive results necessarily must rest with the younger generation, and therefore the constant effort of this office is to coordinate its work with that of the public schools and also to enlist the interest of the element which is just entering into political activities and will soon control public affairs in the municipalities.

#### EXTRADITION PROCEEDINGS.

There have been no extraditions from the islands during the year.

Two men have been returned from Hongkong, one charged with frustrated murder, who returned voluntarily, and one who violated his conditional pardon for counterfeiting revenue stamps and was returned after proceedings.

A fugitive from justice, under sentence for abduction, was arrested in Hongkong. Upon an application for a habeas corpus a court in Hongkong ordered his discharge, on the ground that the extradition papers from the Philippine Islands were insufficiently certified, that the political status of the Philippine Islands had not been established so as to determine whether the extradition treaty between Great Britain and the United States applied to the Philippines, and because of doubt whether the extradition request should be made by the Governor General or the American consul general. The record in this case has been forwarded to the Bureau of Insular Affairs for appropriate action.

#### PARDONS.

At the beginning of the year 66 petitions for pardon were pending determination, and during the year 1,047 new petitions were received. The disposition of all these is set forth in the following table:

##### *Pardon statistics for the fiscal year 1911-12.*

Petitions on hand at the expiration of the last fiscal year.....	66
Petitions received during the fiscal year.....	1,047
Denials.....	775
Full pardons granted.....	137
Remissions of unserved portions of sentences.....	299
Commutations of sentences.....	163
Petitions referred to municipal board of Manila (violations of ordinances).....	4
Petitions pending determination.....	148
Committee on pardons:	
Cases considered and reported upon during the fiscal year.....	143
Cases pending.....	149

The number of cases reported as disposed of appears larger than the sum of the petitions received and those pending at the close of the previous year. The difference is due to the fact that the cases disposed of include fellow convicts who did not present petitions.

#### PASSPORTS.

One hundred and seventy-one passports were issued to citizens of the United States and 68 to citizens of the Philippine Islands, a total of 239 as compared with 220 for the year before

#### CABLEGRAMS.

During the year 393 cablegrams were sent, and the same number were received. Six thousand and seventy excerpts were furnished other bureaus and individuals. The total cost of cablegrams sent amounted to ₱23,255.91, and the cost of this service to the executive bureau was ₱7,950.56, the balance having been collected from other bureaus or persons.

#### TRANSPORTATION.

The contracts already in force for the transportation of employees of this Government and members of their families between the United States and Manila, and vice versa, were unchanged, and in addition the Bureau of Insular Affairs entered into an agreement with the Bank Steamship Line for transportation of Government employees between Seattle and Manila at a rate of \$100. The passenger-carrying steamers of this line have been withdrawn temporarily, however, so that it is not now possible for our employees to secure the advantage of this rate.

Transportation from Manila to San Francisco was secured on United States Army transports for 304 persons, of whom 263 were adults and 41 children. This includes 8 servants, 27 conditionally pardoned prisoners, and 35 indigent Americans. Transportation from Manila to Nagasaki on Army transports was secured for 20; to Portland, Oreg., for 1; to Honolulu for 4; and from Nagasaki, Japan, to San Francisco for 5.

Requests were issued by this office for transportation to the United States across the Pacific on commercial lines for 183 adults, 20 children, 8 Filipino students, and 1 servant, and 81 adults and 8 children were given orders for transportation at the contract rate from Manila to New York City via the Suez Canal.

In all, transportation was arranged for 635 persons.

#### CONTRACTS FOR GOVERNMENT ADVERTISING.

The contracts with three local newspapers for government advertising, which were in force at the end of the last fiscal year, under authority of Concurrent Resolution No. 5, adopted January 15, 1912, by the Philippine Legislature, were continued, and "El Ideal" added to the list.

During the year 744 official advertisements were sent to the newspapers under contract, this being an increase of more than 10 per cent over the preceding year.

**TELEPHONE SUPERVISION.**

Under the provisions of Executive Order No. 20, series of 1912, this bureau has taken over all duties relating to telephone service for the central Government in the city of Manila. This arrangement was inaugurated by the Governor General upon representation by the Philippine Islands Telephone & Telegraph Co., that they could give better service if the company were required to do business with only one office. Under this order all requests for new installations in existing service are sent to the executive bureau, which arranges such matters with the company, and also makes payment to the company in a lump sum for all telephone service, afterwards prorating such cost against the bureaus and offices served.

The whole matter of telephone service is now receiving careful investigation, and improvement is resulting.

**OFFICIAL GAZETTE.**

As has been explained in prior reports, the Official Gazette is published, in English and Spanish, at the expense of the executive bureau, the editorial work being done by the reporter of the supreme court. No immediate change in this arrangement is contemplated. On June 30, 1912, there were 262 paid subscriptions to the Official Gazette (English), and 1,016 paid subscriptions to the Gaceta Oficial (Spanish).

**PUBLIC DOCUMENTS.**

At the beginning of the fiscal year 1,186,027 public documents were on hand, and during the year 685,835 were received from the bureau of printing, 673 bound and 72,000 unbound documents from the Government at Washington, making a total of 1,944,535. The general distribution for the year was 641,530, while 5,092 bound and 8,764 unbound documents were transferred to the Philippine General Library, and 1,217 to the Philippine Assembly, a total distribution of 656,603, leaving a balance on hand at the end of the fiscal year of 1,287,932 documents.

**DIVISION OF LEGISLATIVE RECORDS.**

The secretary of the Philippine Commission is ex-officio chief of the division of legislative records, and his report sets forth in detail the work of this division.

**DIVISION OF ARCHIVES, PATENTS, COPYRIGHTS, AND TRADE-MARKS.**

During the year 1,169 sets of documents relating to the departments of the interior and public works, etc., of the former Spanish Government in these islands, were arranged and classified, as well as 5,356 civil and criminal case records. Four hundred and twenty-seven copies of notarial documents were made, consisting of 545,640 words, for which work the sum of ₱1,453.46 was collected. In addition, a number of official copies of documents were prepared for other government bureaus and offices, for which no charge was made. Numerous reports relating to government buildings have

been prepared, in addition to memoranda on other related subjects contained in the Spanish archives.

There were received and filed 39 certificates of title and leases of government property; also, 11 contracts for construction work and supply of materials.

There were received from notaries public for file 484 books containing notarial records; and 18,647 cattle brands for registration.

While there was a slight falling off in the number of trade-marks, only 173 having been presented for registration as against 177 for the year previous, there was a considerable increase in the registration of corporations; 21 foreign corporations and 99 domestic stock corporations presented their articles of incorporation for registration. During the previous year, only 13 foreign and 72 domestic corporations were registered. The fees for the registration of trade-marks, etc., amounted to ₡9,391.23, and for the registration of corporations ₡6,449.

The total receipts of the division for the fiscal year were ₡17,293.69 as compared with ₡14,383.15 for the previous year.

#### TRANSLATING DIVISION.

The total number of translations made by this division amounted to 14,575 folios, which is an increase of 1,651 folios over the preceding year. Newspapers and periodicals to the number of 3,654 were reviewed, an increase of 1,513, and press reports amounting to 1,078 folios were prepared. The revenue to the executive bureau, representing the charge for translation work performed by this division for other bureaus, amounted to ₡2,702.25. In addition, interpreters have been furnished for committee work of the Legislature and for other government work, as has been customary in past years. The force of this division has been gradually reduced, and it is probable that the minimum working force possible for some time to come has been reached.

#### RECORDS DIVISION.

The increase in the number of written communications received during the year was nearly 9 per cent over the year before, 161,464, as compared with 148,428. There were prepared 472,038 brief and index cards, as compared with 412,120 for last year. Including communications of all classes and documents and publications, there were sent out through the records division 785,892 pieces, as compared with 911,219 for the year 1911.

The question of making a change in our present method of preparing, indexing, and filing correspondence, on lines similar to those recently adopted in various Government offices in Washington, is now under consideration with the object of simplification and greater celerity of dispatch, and it is probable that a new system will be inaugurated on the first of the coming calendar year.

#### BUREAU PERSONNEL.

One change was made in the office staff during the year, Mr. W. T. Nolting, special agent, having been appointed collector of internal revenue on February 21, 1912; Mr. W. W. Barclay was appointed special agent to fill this vacancy on April 27, 1912.

The arrangement of personnel was changed to some extent at the beginning of the year. The administration division, which had theretofore included the provincial and legal sections, became the office of the chief clerk, and the provincial and legal sections became separate divisions, which were designated the provincial division and the miscellaneous division, respectively.

On June 30, 1911, 174 officials and employees were carried on the pay roll. These figures include the janitor and his force which were not shown in the report of last year. During the year there were 68 appointments, 27 resignations, 11 transfers from the bureau, 6 removals, and 3 deaths; and on June 30, 1912, 195 persons were employed by this bureau. On July 1, 1911, the monthly pay roll was ₱22,653.56, and on June 30, 1912, this had increased to ₱25,673.80.

#### THE BAGUIO SEASON.

The Baguio season, from the standpoint of the employee, was a success. From the standpoint of the office the slight inconveniences in the dispatch of work are more than offset by the improved health of the employees and their consequent greater efficiency. A regular program of athletic sports was maintained out of office hours, and this plan, in combination with the invigorating atmosphere, had a notably beneficial effect. Not only is greater vim manifested in the performance of the work of the bureau, but in their outdoor athletic work the men have become better acquainted, have learned to subordinate the individual tendencies to the coordination of teamwork, and are acquiring a greater measure of that *esprit de corps* so necessary for satisfactory service.

The consul general for Great Britain and the consuls for France and Germany each spent a portion of the season in Baguio, and it is understood that Great Britain has authorized the removal of its consulate general to the summer capital during the season hereafter. This, presumably, will have weight with other Governments and may result in the transfer of the entire corps of consuls general and consuls de carrière in future seasons.

#### CONCLUSION.

In concluding this annual report the undersigned desires to give due recognition to the prime factors of whatever success the efforts of the bureau have attained during the year; the confidence and encouragement extended by higher authority; the uniformly favorable and helpful attitude of the public and of all branches of the insular, provincial, and municipal governments; and the high degree of efficiency of the staff and chiefs of divisions of the bureau who have kept the entire personnel, with rare exception, so imbued with interest in work and with a spirit of self-sacrifice in the performance of duty that the typical attitude in every grade of the office force has been a degree of diligence rarely found in employees in either public or private service. The fact that in addition to the seven-hour day which has been the official time requirement during practically the entire year there has been given voluntarily by the employees of the bureau from their own time a total of 38,649 hours and 56 minutes, which represents 5,521 days 2 hours 56 minutes, equivalent

to the time of the entire personnel for 1 month and 7 days, is significant. It is regretted that more material recognition may not be given the sacrifice of time and strength represented by this large amount of voluntary effort on the part of the bureau personnel. There is not included in the foregoing figures anything to indicate the overtime service rendered by officers of the bureau whose reward is had, like that of the responsible heads of private enterprise, in the results they obtain in the undertakings for which they are more or less directly responsible.

Respectfully submitted.

F. W. CARPENTER,  
*Executive Secretary.*

The GOVERNOR GENERAL,  
*Manila, P. I.*



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**REPORT OF THE SECRETARY OF THE INTERIOR.**

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THE WONDERFUL RICE TERRACES OF IFUGAO.

General view of a valley.



## REPORT OF THE SECRETARY OF THE INTERIOR.

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THE GOVERNMENT OF THE PHILIPPINE ISLANDS,  
DEPARTMENT OF THE INTERIOR,  
*Manila, September 18, 1912.*

GENTLEMEN: I have the honor to present the eleventh annual report of the operations of the department of the interior, which, except in certain instances clearly set forth, covers the year ending June 30, 1912.

### WORK FOR THE NON-CHRISTIAN TRIBES

In spite of some unforeseen difficulties, work for the non-Christian tribes has progressed steadily and on the whole most satisfactorily. The untimely death of Mr. Olney E. Bondurant, assistant to the governor of Palawan; the absence during a part of the year of the latter official and also of the governor of the Mountain Province, the governor of Nueva Vizcaya and the lieutenant governor of Ifugao, together with the resignation of Capt. Louis J. Van Schaick, United States Army, governor of Mindoro; and that of Gov. Frederick Lewis, of Agusan, have kept the special provincial government service extraordinarily shorthanded. Such a condition is especially to be deplored for the reason that the personal element plays a very large part in the effective control of savage and barbarous peoples, and that no man, however competent, can attain to his maximum usefulness in such work until after he has won the confidence and the regard of his people and has gained knowledge of them which can be attained only by practical experience. The fact that the absence of so large a proportion of the working force has not resulted in trouble demonstrates the stability of the service which has been established and the effectiveness with which the men remaining on duty have performed their difficult tasks.

### ANTISLAVERY LEGISLATION.

On August 7, 1911, the Philippine Commission passed the following act:

[No. 2071.]

AN ACT Prohibiting slavery, involuntary servitude, peonage, and the sale or purchase of human beings in the Mountain Province and the Provinces of Nueva Vizcaya and Agusan, and providing punishment therefor.

*By authority of the United States, be it enacted by the Philippine Commission, that:*

SECTION 1. Whoever, except in pursuance of the judgment of a court of competent jurisdiction or other lawful authority, shall hold any person in slavery or involuntary servitude, or deliver any person to another person to be held in slavery or involuntary servitude, shall, on conviction thereof, be punished by imprisonment for not less than one year nor more than twenty years and by a fine of not less than five hundred pesos and not more than five thousand pesos, in the discretion of the court.

SEC. 2. Whoever shall compel another person, against his will, to render labor or services in payment of a debt, or whoever shall accept labor or services for such purpose performed under such compulsion, with knowledge of that fact, shall, upon conviction thereof, be punished by imprisonment for not less than six months nor more than five years, or by a fine of not less than one hundred pesos nor more than one thousand pesos, or by both such imprisonment and fine in the discretion of the court.

SEC. 3. Whoever shall sell or barter or cause to be sold or bartered, and whoever shall buy or barter or cause to be bought or bartered, any human being, shall upon conviction thereof, be punished by imprisonment for not less than one year nor more than twenty years or by a fine of not less than five hundred pesos and not more than ten thousand pesos, or both in the discretion of the court.

SEC. 4. Upon the trial of any person for violation of any of the provisions of this act, lack of consent of a person under eighteen years of age shall be conclusively presumed.

SEC. 5. One-half of any fine collected under the provisions of this act shall be paid to the injured person and such payment shall not operate to extinguish in whole or in part any civil action which such injured person may have for damages.

SEC. 6. This act shall apply to the Mountain Province and the Provinces of Nueva Vizcaya and Agusan.

It will be noted that this act is applicable only to the Mountain Province, Nueva Vizcaya, and Agusan. The legislative council of the Moro Province long since passed an antislavery law. Like the other acts of this council, it was subject to approval by the Philippine Commission. Such approval was promptly given.

Acts covering this important subject in the territory under the jurisdiction of the Philippine Legislature have heretofore been passed from time to time by the Commission, but have invariably failed to pass the Philippine Assembly. As all of the special government provinces above-mentioned abut upon regularly organized provinces, the desirability of having uniform legislation was obvious, but, in view of the long-continued failure of the Philippine Assembly to act, further delay in passing an antislavery law for the remainder of the territory under the legislative control of the Philippine Commission was deemed inexpedient.

The passage of Act No. 2071 rendered immediately possible the release of a considerable number of Ifugaos held in slavery by Filipinos in Nueva Vizcaya.

#### ANNUAL NORTHERN INSPECTION TOUR OF THE SECRETARY OF THE INTERIOR.

Immediately after the adjournment of the Legislature I made my usual annual inspection of Nueva Vizcaya and the Mountain Province. I was fortunate in having with me the director of agriculture, the acting chief of the Philippine Constabulary, the director of the bureau of science, Dr. R. Rembe of the staff of the Philippine General Hospital, and the assistant executive secretary, who has immediate charge of provincial and municipal government affairs. Most of the territory visited was new to all of these officers, and the opportunity afforded them to gain first-hand knowledge of conditions has resulted in bringing them into a relationship to this special work even more helpful than that which before existed.

The need of entertaining the great crowds of wild men who meet the secretary of the interior on these trips is imperative, and at times embarrassing. The gatherings often include large numbers of men who have until recently been bitter enemies, and who are liable to indulge in untimely reminiscences, with unfortunate results, if not

kept actively occupied. This problem was solved in part in a somewhat novel way by taking with us a portable moving-picture outfit and showing our wild friends something of life in a world heretofore beyond their ken. At the same time we ourselves took cinematograph films designed to afford an accurate and permanent record of characteristic scenes and events in the now rapidly changing methods of life of these comparatively primitive tribes.

#### SITUATION REVIEWED BY PROVINCES AND SUBPROVINCES.

##### CONDITIONS IN NUEVA VIZCAYA.

Gov. W. C. Bryant returned from leave and temporarily assumed his former duties, his work having been very successfully carried on during his absence by Mr. Norman G. Conner, who was made lieutenant governor of Apayao on Gov. Bryant's return. The latter was soon promoted to the governorship of Agusan. Capt. O. A. Tomlinson, Philippine Constabulary, who had very ably served as lieutenant governor of Ifugao during the absence of Capt. Gallman, was made acting governor of Nueva Vizcaya. Mr. H. J. Detrick, assistant to the governor of Nueva Vizcaya, was promoted to the lieutenant governorship of Amburayan, and Lieut. Wilfrid Turnbull, Philippine Constabulary, was appointed to the position thus vacated.

In spite of this unprecedented series of changes, work in Nueva Vizcaya has progressed steadily. The road and trail system has been extended and improved, and a steadily increasing degree of control has been established over the scattered Ilongots inhabiting the great forest area recently added to the Province. Crimes of violence among them have been fewer than ever before.

An important salt-producing industry has been established by the Province at Salinas, and the cost of this article of fundamental necessity has thus been greatly reduced in Nueva Vizcaya and Ifugao.

The road toward the Isabela border has been pushed as far as existing funds will permit. Thirty-two kilometers have been graded, of which 27 have been surfaced. Approximately 19 kilometers remain to be completed. As unsurfaced road in this region is usable during some 10 months of the year and as this important work must be completed gradually, I think the grading should be pushed to early completion and the surfacing then done as rapidly as funds will permit.

The trail to the Ifugao border has been converted into a cart road over which salt is cheaply transported in large quantities.

##### CONDITIONS IN THE MOUNTAIN PROVINCE.

The Mountain Province is divided into seven subprovinces, namely, Ifugao, Bontoc, Kalinga, Apayao, Lepanto, Amburayan, and Benguet. It has a governor, a secretary treasurer, and a supervisor or engineer officer. Each subprovince has a lieutenant governor. Its wild inhabitants number some 400,000 and belong to five sharply distinct tribes. All of them, with the exception of the Benguet-Lepanto Igorots have recently been head-hunters. Territorially it is the second largest province in the Philippines. It now has 40 kilometers of road, 227 of cart trail, and 1,126 of horse trail, and the road and trail system is being rapidly extended.

## CONDITIONS IN IFUGAO.

The state of public order in the subprovince of Ifugao leaves little to be desired. The very friendly feeling which prevails between Ifugaos and Americans makes the work in this subprovince especially interesting and attractive. The trail system has been greatly improved and rapidly extended. Considerable progress has been made in constructing irrigating ditches. The unprecedented drought caused a serious rice shortage and led many Ifugaos to seek work temporarily in neighboring Provinces, a thing which they would not have dared to do a few years ago.

The return of Capt. Jeff D. Gallman, Philippine Constabulary, from leave in the United States and his resumption of his duties as lieutenant governor were made an occasion of great rejoicing by the people. At the time of my annual visit to Kiangnan, Lieut. Gov. Gallman was lying in the Bontoc hospital recovering from a severe surgical operation. His absence from the festivities was deplored by the Ifugaos, who insisted on singing and dancing in the room in which the telephone was located in order that he might hear the resulting uproar while lying in his bed 70 miles away, and one of the chiefs, standing before the telephone, made a speech for his benefit. The people then insisted on hearing his voice in order that they might be sure that he was still alive.

## CONDITIONS IN BONTOC.

During the absence of the governor of the Province his work was performed by Mr. C. W. Olson, the provincial secretary treasurer, who also served as lieutenant governor of Bontoc until the place was filled by the appointment of Mr. Samuel E. Kane, who, as supervisor of the Mountain Province, had long been in charge of its public works. Conditions as to law and order have remained excellent. Cart roads and horse trails are in better condition than ever before.

## CONDITIONS IN KALINGA.

With the exception of a short absence in Manila, where he was sent to install and care for the Mountain Province exhibit at the exposition, Lieut. Gov. Walter F. Hale has remained at his post of duty throughout the year and progress in his subprovince has been gratifyingly steady. The trail system has been materially improved and extended and the lieutenant governor has been able to assist Apayao by taking charge of some trail work across the line.

## CONDITIONS IN APAYAO.

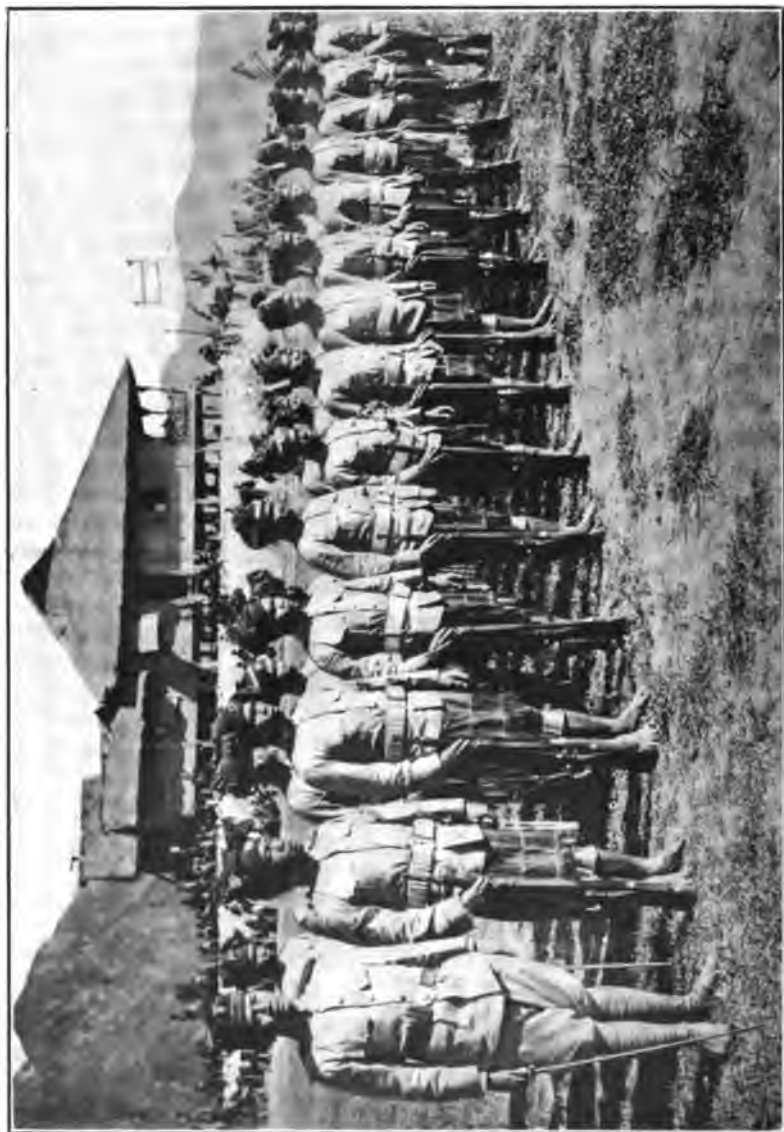
Conditions in Apayao have for some years been less satisfactory than in any other portion of the Mountain Province. Mr. Norman G. Conner has now been made its lieutenant governor. His previous record for efficiency, coupled with his practical experience as acting governor of Nueva Vizcaya, led me to hope for prompt and material improvement under his administration. This hope has been realized. Trail construction has been pushed and progress has been made in gaining the confidence and good will of the people, without which effective work can not be done. Within two years a good system of communication should be established and there should be close friendly relations with the wild Tingians who inhabit this subprovince.



THE WONDERFUL RICE TERRACES OF IFUGAO.

Near view, showing structure of terrace walls.





IFUGAO CONSTABULARY SOLDIERS.

These men are brave, efficient, and loyal. They shoot with extraordinary accuracy.



**STONE SCHOOLHOUSE BUILT BY IFUGAO BOYS.**

This remarkable structure is being erected at Quiangan by Ifugao school boys who are doing all the work under the direction of an American teacher. They have split bowlders, shaped the stone thus obtained, faced it, and laid it, and are now doing the woodwork on the building.



ENTRANCE TO STONE SCHOOLHOUSE BUILT BY IFUGAO BOYS.



IFUGAOS BUILDING TRAIL.

This illustration shows work just begun on a steep mountain side.



FINISHED TRAIL BUILT BY IFUGAOS.



**FINISHED TRAIL BUILT BY IFUGAOS.**

Note the irrigation ditch at the left.

The grades on many of the trails are such that irrigation water can be carried in ditches beside them for long distances.



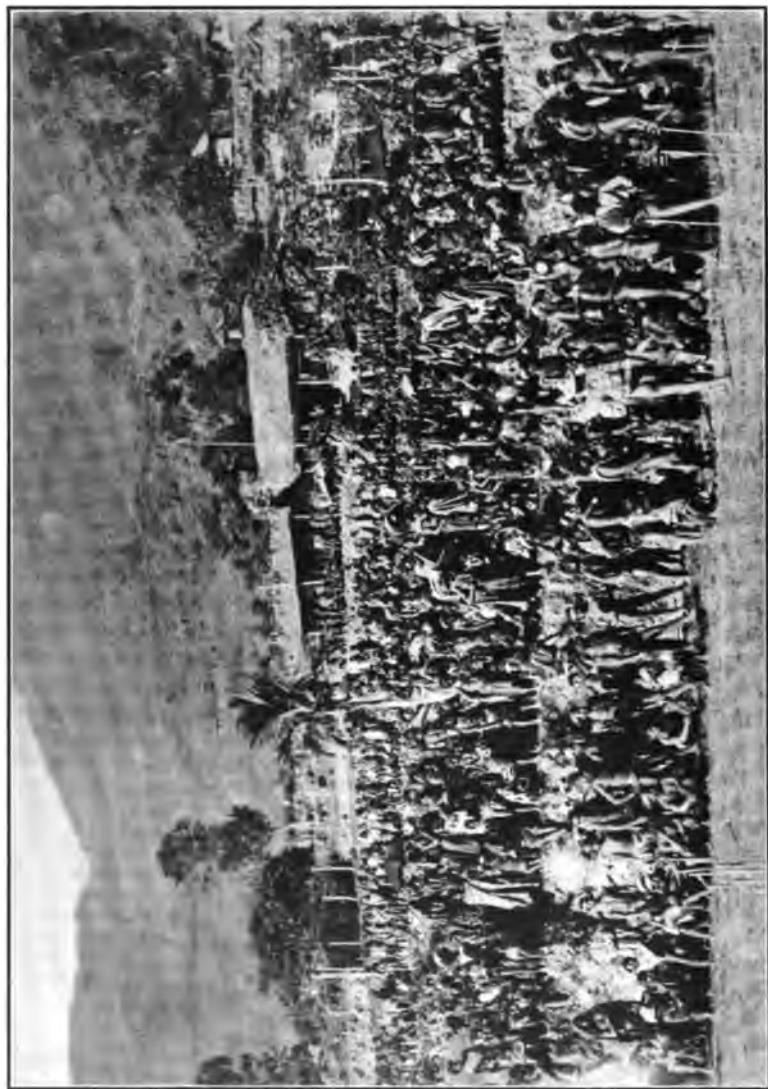
FINISHED TRAIL BUILT BY IFUGAOS.



**FINISHED TRAIL BUILT BY IFUGAOS.**

Note the irrigation ditch at the left. The grades on many of the trails are such that irrigation water can be carried in ditches beside them for long distances.





**KALINGAS WATCHING ATHLETIC SPORTS AT LUBUAGAN.**

For the first time athletic sports were introduced among the Kalingas when the secretary of the interior visited Lubuagan in March, 1912. Contestants were numerous in every event and the spectators were keenly interested.



LANCE THROWING AT LUBUAGAN.

The lance has just left the hand of this powerful savage.



**RUNNING HIGH JUMP AT LUBUAGAN.**

Without any preliminary training whatever, the Kalingas jumped gracefully and well.

## CONDITIONS IN LEPANTO.

The people of Lepanto are for the most part peaceful agriculturists who have never indulged in head-hunting. The presence of a gang of cattle thieves who lived in the mountains near Suyoc and conducted operations as far south as Baguio, made it necessary for me to approve an order to the provincial governor directing certain persons residing in suspiciously inaccessible places for no apparent reason to settle on sites where they would have much better opportunities to practice agriculture and could be readily reached. Before approving this order I gave the people concerned a hearing. No objection was made to the proposed plan.

In Lepanto, as elsewhere throughout the Mountain Province, I found old roads and trails in excellent condition and a considerable mileage of new trails constructed.

## CONDITIONS IN AMBURAYAN.

Mr. H. J. Detrick was appointed lieutenant governor of Amburayan on August 8, 1911. Under his administration very satisfactory progress has been made, and there has been a gratifying continuance of the era of good feeling recently brought about between the hitherto constantly warring factions among the Filipino inhabitants of Tagudin, which has become a clean, healthy, and progressive town.

## CONDITIONS IN BENGUET.

The peaceful Igorot population of this Subprovince has continued to prosper throughout the year in spite of the unprecedented drought and the resulting crop shortage. The conversion of the former Naguilian Trail into a good cart road, over which automobiles of moderate size can pass, and the inauguration of railroad construction at the Baguio end of the new line have afforded opportunity for profitable employment to every man, woman, and child willing to work.

Acting under instructions from the governor general, I have utilized the provincial organization of the Mountain Province to perform railroad grading, the railroad company paying all laborers direct and reimbursing the Mountain Province for the services of the members of its field force who have been employed. Igorot laborers have thus been kept under the direction of foremen experienced in handling them and in safeguarding their interests, as well as in the maintenance of good sanitary conditions. This opportunity for profitable employment has been a great boon to the Benguet Igorots.

The work of converting the Naguilian Trail into an unsurfaced cart road was accomplished in a short time and at very small cost. Funds have since been made available for surfacing those portions of it which are most likely to break down under heavy cart traffic, and this work is progressing rapidly. The opening of this new line of communication is of material importance to the neighboring Province of La Union, which is thus given an opportunity to send its products to the summer capital. Lieut. Gov. E. A. Eckman is entitled to special credit for the efficient manner in which he has supervised both the construction of this road and the performance of the railroad grading. He has also served as mayor of Baguio, but as this city,

although situated in the Mountain Province, is under the executive control of the governor general I do not report on his activities as such officer.

#### CONDITIONS IN THE PROVINCE OF MINDORO.

Rapid progress has been made in Mindoro during the year. A small but very useful cement pier has been constructed at the capital. The road and trail system has been rapidly pushed. One can now ride from Calapan to Pinamalayan. The trail system will be extended around the entire island as rapidly as circumstances will permit.

The Filipino towns have become models of cleanliness and good sanitation. They afford a valuable demonstration of what can be done to better shockingly insanitary conditions where effective control is possible. The contrast between sanitary conditions in the Mindoro towns and in the regularly organized provinces is very striking. One most gratifying practical result is that the Mindoro school-houses are all becoming much too small. The towns swarm with happy, healthy youngsters, who are now growing up to useful citizenship instead of meeting the untimely death which awaited so many of the children when almost every yard harbored some reeking source of disease.

The work for the Mangyans has been actively pushed. Our knowledge of these seminomadic but gentle and harmless savages has been materially increased. Some of them have been persuaded to build villages and settle down to a more orderly life. Several new schools have been established for Mangyan children, who prove to be bright, capable pupils.

Many parts of Mindoro suffered very severely from the drought, and some care has been necessary in order to keep the people on the out-lying small islands supplied with rice.

After more than five years of faithful and efficient service, the governor of the province, Capt. Louis J. Van Schaick, United States Army, tendered his resignation, anticipating the necessity of returning to his regiment upon the passage of the army appropriation bill then pending, and desiring to enjoy well-earned leave before reporting for duty. The resignation from the special government service of an efficient officer who has profited by so many years of experience is a serious loss. The vacancy has been filled by the appointment of Mr. R. E. Walters, who has long been employed by the bureau of lands in a capacity which has brought him into constant and close touch with the poorer Filipinos, whose rights in the matter of land holdings he has had frequent occasion to defend. It is believed that this experience will especially fit him to protect the interests of the Mangyans, who are still in many instances mercilessly exploited by the Filipinos of the coast towns.

Ability to find profitable employment on the San Jose Estate and on the Mindoro Co.'s holdings has been a valuable asset for the working people of Mindoro during the trying drouth. A few Mangyans, even, have sought employment there.

#### CONDITIONS IN THE PROVINCE OF PALAWAN.

The provincial service of Palawan and the special province service in general met with a serious and deeply regretted loss in the death of the assistant to the provincial governor, Mr. Olney E. Bondurant,

caused by pernicious malarial fever. He died at Balabac on January 20, 1912, soon after his return from the United States. Mr. Bondurant had immediate charge of southern Palawan, the territory under his jurisdiction including all of the Moro and most of the Tagbanua country. He had rendered very important service in connection with the moving of renegade Moros from the west coast, and had made rapid progress in the establishment of helpful and friendly relations with both Moros and Tagbanuas. He was a fearless, tireless, efficient officer. Even when attacked by the illness which ended his life he refused to give up, but rendered service in the field on the day of his death. His death was keenly regretted by many of the unruly Moros whom he brought under Government control and whose interests he carefully safeguarded as long as he lived.

The vacancy which it created was filled by the appointment of Mr. Lewis Carrigan, who had previously held the position of superintendent of schools in Agusan and had there actively taken part in work for the betterment of wild people.

The Moros of Palawan are now astonishingly friendly. I recently visited their towns without a guard. No member of my party carried a weapon of any sort. At the invitation of the Moro chiefs we sat at meat with them. The wives of the ranking chiefs appeared publicly during our visit. These latter two occurrences are unprecedented in my experience. Datto Tumay, whose men attacked my escort two years ago, showed me with great pride that he had built with his own hands the best house in Bonabona and was himself tilling the largest piece of land cultivated by a Moro in Palawan. Plows and other agricultural implements were requested by the Moros and have been furnished them.

The drought would have produced actual famine in the Moro country had it not been for Government assistance in the form of opportunity to work for rice, the affording of which was highly appreciated and has gone far to promote friendliness.

Most satisfactory progress in dealing with the Tagbanuas has been made possible by the transfer from the west coast of the Moros who formerly so persistently plundered them and the establishment of effective government control over the entire Moro population of Palawan.

The opening of so-called Government exchanges where the Tagbanuas can sell their products and can purchase what they need at reasonable prices has greatly pleased them and is bringing about helpful contact between provincial officials and wild men from the most inaccessible regions.

Trail work has been rapidly pushed. During much of the year it is now possible to ride a horse from Puerto Princesa Bay to Bonabona. An excellent line has been staked across the island from Separation Point to Alfonso XIII, and construction work has commenced.

The Tagbanuas, like the Moros, are beginning to display willingness to settle in villages. Although heretofore somewhat prone to use blowguns and poisoned arrows in the defense of their rights, and in standing off strangers as to whose intentions they entertained doubts, they are naturally industrious agriculturists, raising more than enough rice for their own needs. The opportunity now afforded them to sell their surplus products and to improve their agricultural methods should lead to rapid progress.

In order to prevent trespass by Filipinos upon their cultivated land, a Government reservation has been set aside for them at Aborlan, where a Tagbanua industrial school is located. Families are settling on this reservation in constantly increasing numbers. A large tract of land has been cleared and planted. The school is accomplishing important results, although its work was interrupted during the year by the death of its superintendent, Mr. William M. Wooden, who was drowned in the surf while trying to swim ashore from a launch.

While much has been accomplished in bettering the condition of the people of Palawan, the cost to date in valuable lives has been heavy. Gov. Miller was drowned in the discharge of his duty. Mr. Bondurant, assistant to the governor, died of pernicious fever on the evening of his last day's work in the field. Mr. W. B. Dawson, the first superintendent of the Aborlan School, died of malaria at his post, and Mr. Wooden, the second superintendent, was drowned while hastening back from the provincial capital. The results for which these splendid men paid so dearly are worth the cost if they are to be permanent. Were they to be rendered futile by the premature withdrawal of American control, the price would indeed be dear.

During the absence of Gov. Evans his duties were performed by the provincial treasurer, Mr. Clark, who was already carrying a heavy load at the time he assumed them. Gov. Evans's return from leave made possible the more active prosecution of work in central and northern Palawan and in the adjacent islands.

Encouraged by the results of the sanitary campaign so successfully carried out in Mindoro, I have inaugurated a similar one in the Filipino towns of Palawan. Bad conditions at Puerto Princesa and at Cuyo have already been remedied to a large degree and the work will be carried into the smaller towns and barrios as rapidly as practicable.

Palawan suffered even more severely from the drought than did Mindoro. Coconut palms and even forest trees were killed. Dry weather apparently favored the reproduction of a common caterpillar which became a scourge, eating such crops as the drought spared. In a number of places actual famine was averted only by providing opportunity to labor on public works and obtain payment in rice.

#### CONDITIONS IN THE PROVINCE OF AGUSAN.

The Province of Agusan has two Subprovinces, Butuan and Bukidnon. Butuan is composed largely of low-lying forest land and swamps through which flow the Agusan River and its tributaries. Bukidnon is largely made up of high, grassy plains forested sparsely if at all. It enjoys a temperate climate, and while wonderfully well watered is without navigable streams. Rainfall is heavy and quite uniformly distributed throughout the year in both Subprovinces, which did not suffer severely even during the recent unprecedented drought.

Four different men have held the post of governor during the year. Acting Gov. Col. John R. White, Philippine Constabulary, was succeeded on September 28, 1911, by Frederick Lewis, promoted from the position of lieutenant governor of Bukidnon.

The capital of Agusan is at Butuan and the principal work of the provincial governor is in the hot, damp Subprovince of the same name. Gov. Lewis's health, which had been weakened by long-continued and arduous service in Bukidnon and was not fully restored, soon began to fail. For this reason he tendered his resignation and I reluctantly recommended its acceptance. He was immediately transferred to an important position in the Mountain Province, where favorable climatic conditions speedily restored him to vigorous health.

The vacant governorship was temporarily filled by the appointment of Capt. G. O. Fort, Philippine Constabulary. Capt. Fort was the ranking constabulary officer in the province and was engaged in an active and effective campaign against Taudi and Ilulibayan, the murderers of Mr. Ickis, and the band of outlaws and assassins which they have gathered around them. I greatly regretted the necessity for interfering with this work by imposing on Capt. Fort additional duties, but there seemed to be no other competent man immediately available for the place. As soon as possible it was regularly filled by the promotion of Gov. Bryant of Nueva Vizcaya. Gratifying progress has been made at Butuan, which is now a beautiful town, and in many of the Manobo settlements on the Agusan River and its tributaries. The long-haired wild men from the hills continue to come in, form villages, and settle down to a peaceful and orderly life.

The mileage of navigable rivers is being steadily increased by the removal of obstructions. The upper Agusan was in 1905 cut off from the lower river by earthquakes which caused subsidence over an extensive area with resulting submersion of forests, creation of lakes and swamps, and complete obliteration of the old river banks. Two canals, navigable for good-sized launches, have now been opened through this region.

No trails other than mere footpaths have as yet been constructed in the Subprovince of Butuan.

In the Subprovince of Bukidnon the road and trail system has been extended and improved in a most gratifying manner. Nothing could be more satisfactory than the spirit of the Bukidnon towns, which vie with each other in the building of good roads, the construction of substantial bridges, and the erection of attractive public buildings. The population of the towns grows steadily as the wild men in the hills become convinced of the desirability of coming in and settling. The area under cultivation also steadily increases. The drought left this wonderful agricultural region practically untouched.

At the time we first obliged the people of Sumilao to clean up their yards we found a few old coffee trees badly affected by blight. We suggested that they plant coffee and thus get additional benefit from the work necessary in keeping the yards clean. The resulting good cultivation, unaided by any other means whatever, has so increased the vigor of the coffee bushes as to enable them to resist blight. Two-year old bushes are bearing heavily, while those planted a year earlier are actually breaking down under their burden of fruit. This one small town will ship 3,000 cavans (about 6,330 bushels) of coffee during 1912.

One serious calamity has marred the otherwise uninterrupted progress of this subprovince. Taudi's outlaws raided outlying territory, killing two influential loyal chiefs and a score of men, women,



and children. Requests for constabulary assistance remained long unanswered, as did an urgent demand for a limited number of fire-arms so that the people might protect themselves. I then appealed directly to the Governor General, with the result that the needed fire-arms were promptly forwarded and that a company of Philippine Scouts was hurried to the scene of disorder. This scout company rendered most satisfactory service in protecting the towns, restoring the confidence of the people, and dispersing the outlaws. Twenty-five Springfield carbines were effectively used by Bukidnon volunteers, who rendered very valuable service both independently and in cooperation with the scouts. Absolute tranquility has since prevailed. The outlaws were driven back into the Umayam district, in Butuan, where an effective constabulary force awaited them. As a result of the thorough shake-up which they then received, some 400 of them have sought and received permission to settle in Bukidnon, while a considerable additional number have followed a similar course in Butuan.

Lieut. Gov. Fortich continues to have extraordinary success in influencing wild men to come in from the hills and establish model villages. At one of the newest and most inaccessible of these, in the very heart of Mindanao, I found the Manobos cutting the grass on their town plaza with a lawnmower and building excellent houses in lieu of the tree dwellings which they had so recently forsaken. The streets were well constructed and clean, and adequate sanitary facilities were present.

The loyalty of these people, when they realized that instead of being oppressed or hunted like wild beasts they are being protected and helped, is really touching.

The people of the Bukidnon towns, far from having experienced hunger, had food to sell. They are now raising corn most successfully. The stalks stand 10 to 15 feet high and produce one to three large ears each. Both Filipino and imported Indian cattle are doing splendidly. Bukidnon is capable of producing draft animals and beef cattle sufficient for the entire Archipelago.

#### SUMMARY OF CONDITIONS IN BUKIDNON.

When the territory inhabited by the Bukidnons was cut off from Misamis, these people were suffering more severely at the hands of their Filipino neighbors than were the people of any other non-Christian tribe in the Philippines. They were, in many instances, robbed of their coffee, cacao, hemp, and gutta-percha, or were compelled to sell these products at absurdly inadequate prices. No provincial governor had ever visited their country. Their settlements were practically without government. There was, therefore, no check upon the rapacity of those who plundered them. Many members of the tribe who had been baptized and had adopted a civilized life were taking to the hills. Such villages as existed were filthy and insanitary. No food crops were grown in their vicinity. Indeed, the people did not believe that the rich prairie soil surrounding their villages would produce crops. There was not a bridge or a culvert in the subprovince, and travel was often rendered impossible by streams in flood. All agricultural products were necessarily transported on pack animals over excessively bad trails. There was not a mile of road in the subprovince.



OPENING UP COMMUNICATION IN BUKIDNON.

The main road from the coast at the point where it descends into the Mangima River Canyon.



#### OPENING UP COMMUNICATION IN BUKIDNON.

Typical unsurfaced road in the outskirts of a town. The chief problem connected with road construction in Bukidnon is to obtain surfacing material, the prairie soil being almost entirely free from stone.



OPENING UP COMMUNICATION IN BUKIDNON.

General view of a stretch of typical low-grade trail for pack animals and mounted travelers. This trail was surveyed and built by Leoncio, a Bukidnon man.



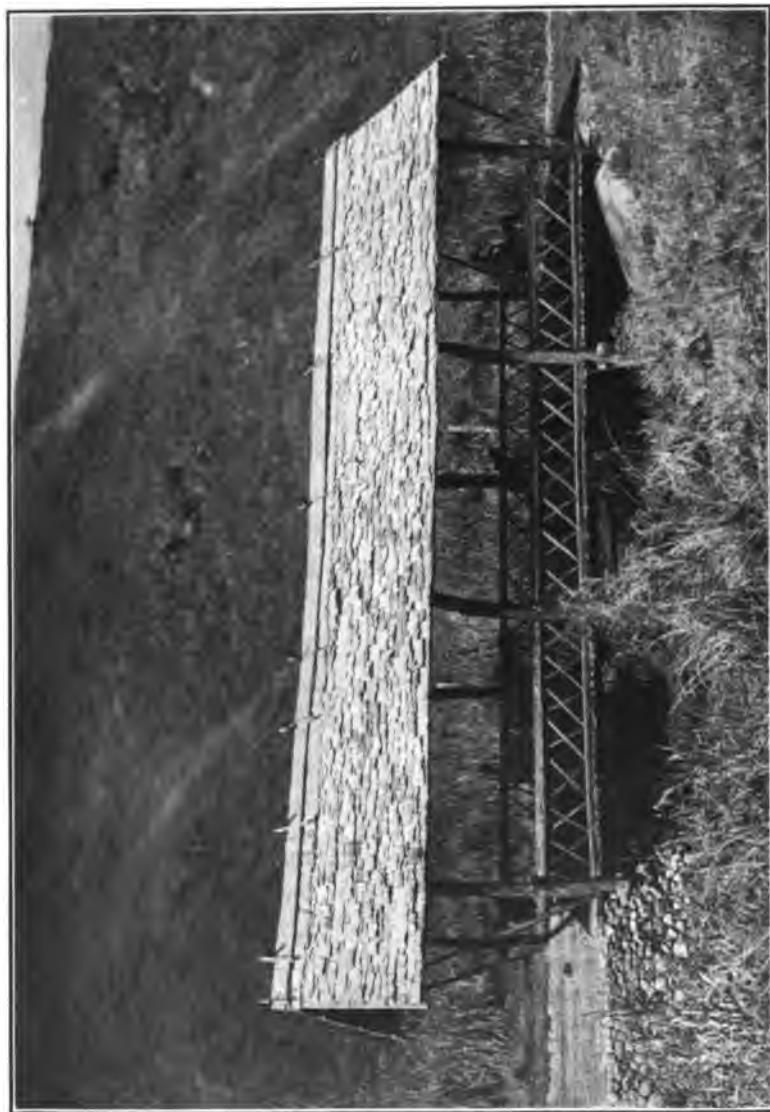
**OPENING UP COMMUNICATION IN BUKIDNON.**

Typical low-grade trail for pack animals and mounted travelers. Near view to show type of construction.



#### OPENING UP COMMUNICATION IN BUKIDNON.

Bringing in a bridge timber. The heavy hardwood timbers used in bridge construction are often dragged for 10 or 15 miles by hundreds of men. The towns vie with each other in the construction of excellent bridges which cost the sub-Province nothing except the price of the iron bolts required to fasten timbers together.



#### OPENING UP COMMUNICATION IN BUKIDNON.

A typical bridge over a small stream. There are more than 100 bridges between the coast and the subprovincial capital, rendering it unnecessary to ford a single stream. At the outset there was not a bridge or a culvert in the sub-province and travel was impossible during heavy rains. Now it is never interrupted by high water.



**OPENING UP COMMUNICATION IN BUKIDNON.**

A typical bridge built entirely by Bukidnon men.





OPENING UP COMMUNICATION IN BUKIDNON.

This bridge, 300 feet long, with a central span of 75 feet, is being built by the Bukidnon foreman Leoncio.



#### OPENING UP COMMUNICATION IN BUKIDNON.

At the outset the people of this tribe did not know what a good trail was like. Most of them had never seen a bridge or a culvert. Leoncio, the Bukidnon man here shown, who is completely illiterate, is to-day surveying and building low-grade roads and trails and planning and constructing long bridges over rushing mountain rivers. He has learned all he knows from Lieutenant Governors Lewis and Fortich. His compensation, with which he is well satisfied, is ₱2 per day.



**OPENING UP COMMUNICATION IN BUKIDNON.**

The construction of good roads, low-grade trails, and bridges makes it possible for pack animals to carry very heavy loads.



A TYPICAL STREET IN A NEW BUKIDNON TOWN.

The towns which are being built up by the members of this non-Christian tribe are models of cleanliness and sanitation.



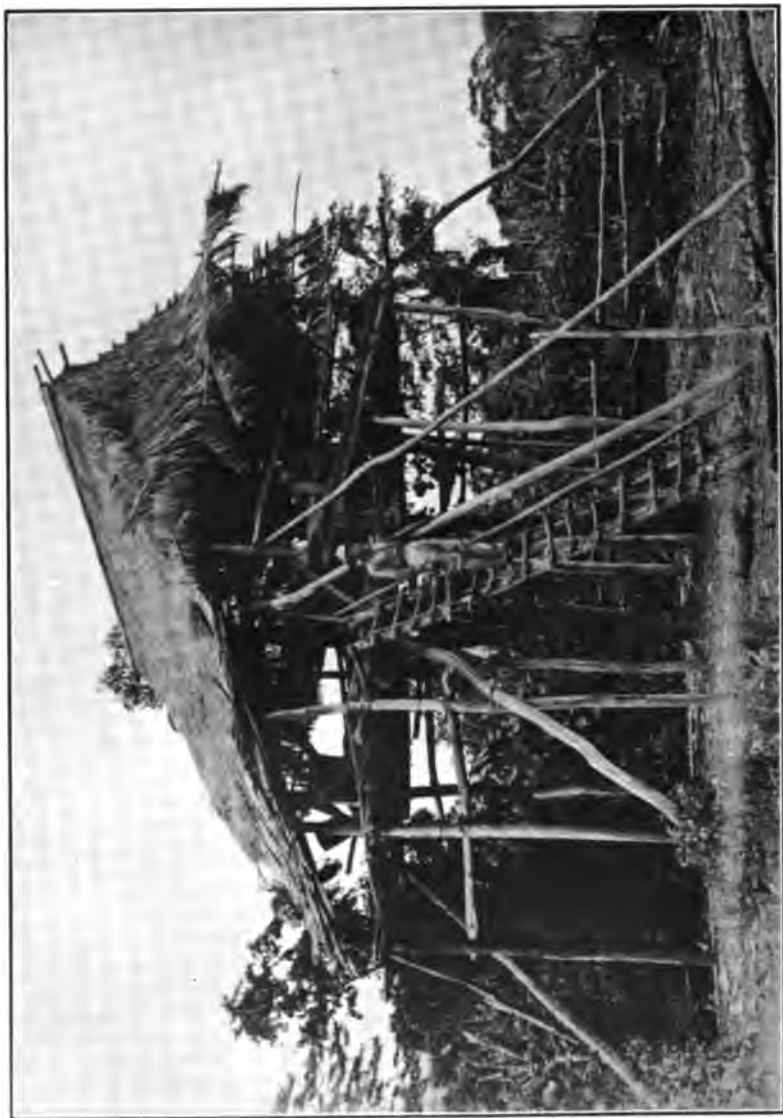
A TYPICAL STREET IN MALAYBALAY, THE CAPITAL OF BUKIDNON.

Note the stone sidewalks and the gravel surfacing on the streets.



A SCENE IN MARAMAG.

Maramag is one of the newest of the Bukidnon towns. A year ago the houses of many of its present inhabitants were located in treetops in the neighboring mountains. Now these same people are using a lawnmower to cut the grass on their town plaza, a bit of which may be seen at the right.



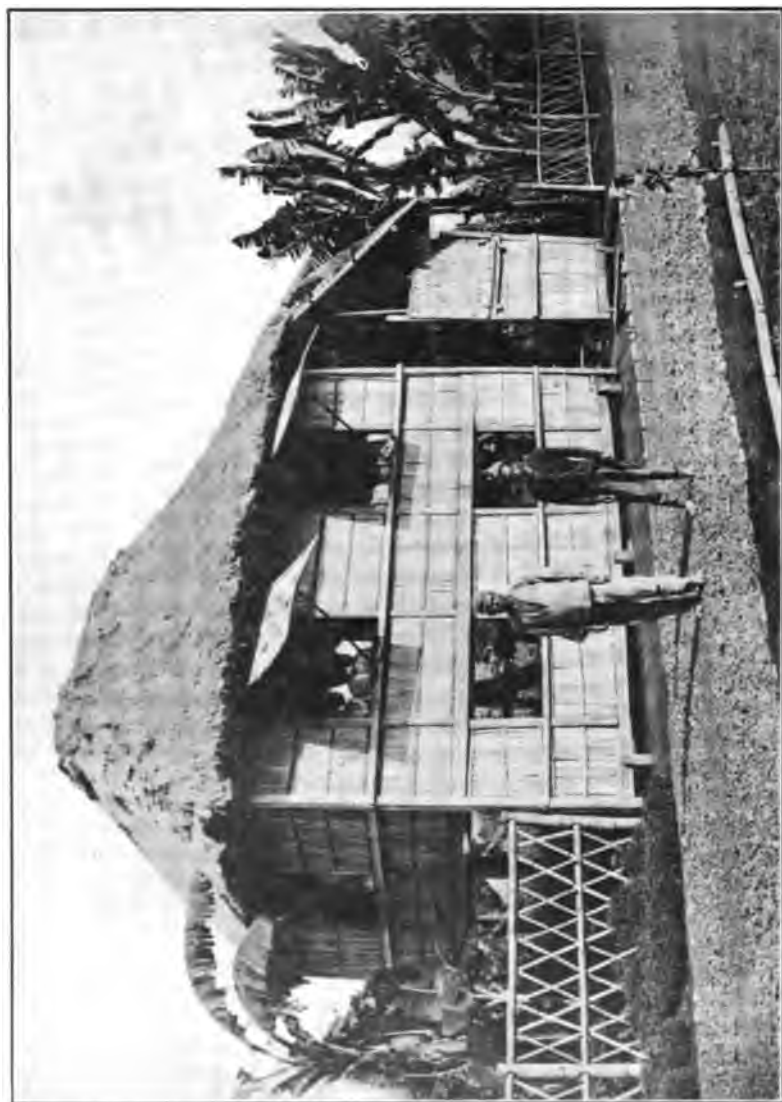
A BUKIDNON HOUSE OF THE TYPE NOW BEING ABANDONED.



#### NEW ARRIVALS IN TOWN.

These people, who have just come in from the hills, where they have abandoned a tree house, have been decked in the garb of civilization by kindly Bukidnon neighbors who are already old residents. They have built themselves a hut for temporary occupancy while constructing the house of the improved type which is already underway. They have partially fenced in and planted ground which they will soon begin to cultivate. The evolution of families from barbarism to civilization may be seen in the outskirts of every Bukidnon town.





A BUKIDNON HOUSE OF THE NEW TYPE.



THE "PRESIDENCIA," OR MUNICIPAL BUILDING, OF A BUKIDNON TOWN.



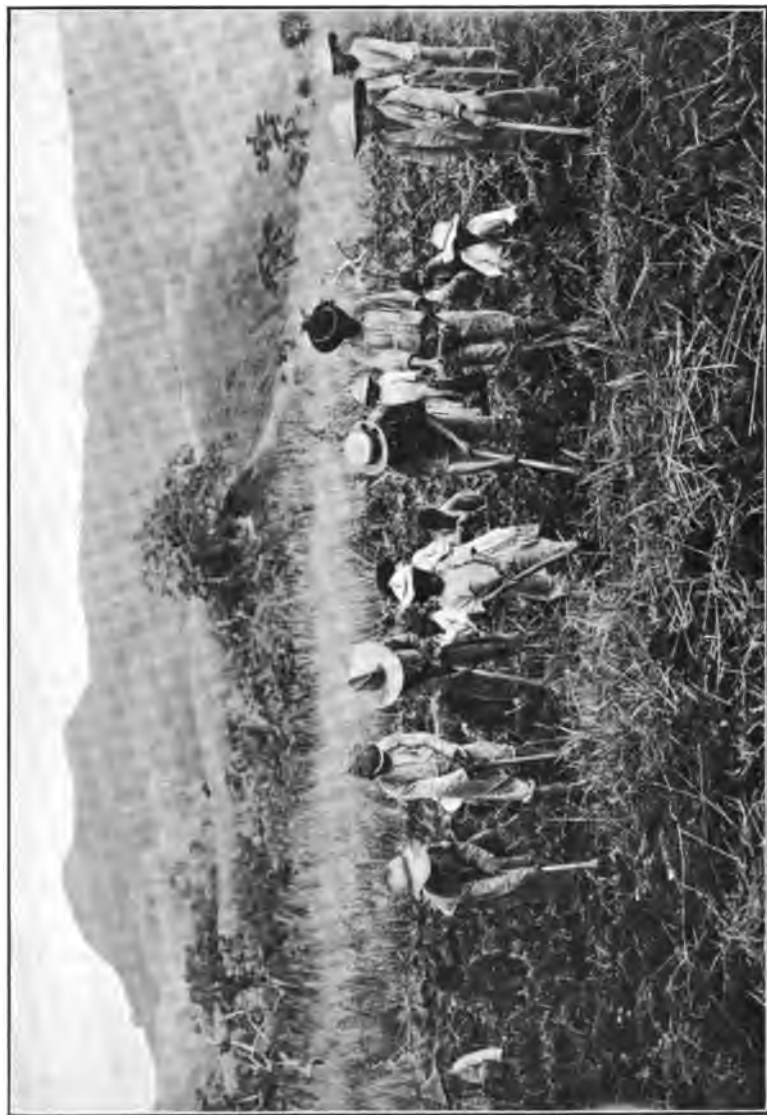
#### BUKIDNON VOLUNTEERS.

The Bukidnon people are aiding effectively in policing their own territory. These volunteers, armed with Springfield carbines of the old type, did very effective work in killing, capturing, and dispersing the members of a band of outlaws which murdered 14 people. Stripped of all superfluous clothing and carrying neither luggage nor rations, they moved very rapidly and seemed able to remain in the field indefinitely, living on the products of the forest.



A TYPICAL SCHOOLHOUSE IN BUKIDNON.

The pupils in the foreground. The people of each Bukidnon village are only too glad to build a schoolhouse and a dwelling house for a teacher if assured that one will be assigned to them. The bureau of education is not only teaching the children English, arithmetic, etc., but is giving practical instruction to the boys in agriculture and to the girls in weaving, sewing, and other household arts.



**PRACTICAL INSTRUCTION.**

**Bukidnon schoolboys learning to break sod with mattocks. Heretofore the Bukidnon people have thought it impossible to break the sod of the rich grassland.**



**PRACTICAL INSTRUCTION.**

Bukidnon schoolboys learning to plow.



**PRACTICAL INSTRUCTION.**

**Bukidnon boys at the Mailag Industrial School cultivating arrowroot.**



THE MALAYBALAY BAND.

This really good band is composed entirely of Bukidnon boys and is the pride of the people of this tribe, not a member of which knew how to play any band instrument at the time it was organized.





Presidente of Silae.

#### THE OLD AND THE NEW.

The presidente of Silae is an old fighting chief, as is shown by his wearing the headdress which may be donned only by highly successful murderers. He has recently come in from the mountains with his people and is building up a good town. In many towns, however, it has been found better to use young men for officials. The presidente of Impasugong, who has built up one of the best towns in the subprovince, was taken out of school and appointed to municipal office.



Presidente of Impasugong.

Now, the Bukidnons have been taught the value of their agricultural products and for the most part insist on receiving it when they sell. They are governing their own settlements and doing it well. Their houses are neat and well kept; their yards fenced, clean, and usually planted in useful crops. The streets and plazas of their villages are clean and well drained. Each important village has its well attended school. Grassy prairie lands have been converted into rich, cultivated fields. Excellent low-grade trails connect the more important villages, between which telephonic communication has also been established. A highway passable for automobiles is being pushed toward the subprovincial capital from the coast. On this route alone there are more than 100 bridges and culverts, and travel is not interrupted by the heaviest floods. The people are prosperous, contented, and more than friendly; yet much remains to be done.

Along the Cagayan River and elsewhere near the Misamis boundary they are still often mistreated by their Filipino neighbors. Unscrupulous municipal officials take advantage of their ignorance and timidity to compel them to pay in Misamis taxes which they do not owe. By one expedient or another they are deprived of their cultivated lands.

The following instance is typical of what only too often occurs. A long-haired man from the forest, who, by hard work had established a coffee and hemp plantation, made a trip to the coast to sell his products. Ignorant of the language there spoken, he fell into the hands of an unscrupulous trader, who told him that he needed a business partner in town who would sell the products of his plantation in the hills, thus saving him the expense and trouble of long journeys to the coast. Pleased with the idea, the wild man signed a document drawn up by his rascally new acquaintance. It purported to be a partnership agreement. It was in reality a bill of sale for his place.

The wild man, unassisted, is absolutely helpless in the courts. It will, I fear, be necessary to employ the services of a competent lawyer to protect these "heathen" from their "Christian" neighbors.

#### THE USE OF PHOTOGRAPHS TO SHOW THE PROGRESS OF THE BUKIDNON PEOPLE.

It is impossible by words alone to bring home to the public the extraordinary character of the progress which is being made by the people of this little-known tribe. In preparing this report I have attempted to illustrate this progress by the liberal use of photographs, in the hope of thus bringing the facts home more effectively than would otherwise be possible.

#### BUREAU OF HEALTH.

##### THE YEAR IN BRIEF.

At no time since American occupation has the Archipelago been so seriously threatened with invasion by dangerous communicable diseases. In consequence the efficiency of the bureau of health and of the quarantine service has been severely tested. Nevertheless, health and sanitary conditions have been decidedly better than during any previous year.

The Philippine General Hospital with its admirable facilities for bed patients and its very large free out-clinic has brought relief to thousands of sick and injured persons who have come to it from all over the Archipelago.

Although bubonic plague has again invaded the country after an absence of six years, it has been promptly checked, and the outlook is encouraging.

#### IMPORTANCE OF THE NEW WATER SUPPLY IN REDUCING THE MANILA DEATH RATE.

Sufficient time has now elapsed thoroughly to demonstrate the benefits which the city derives from the purer water supply drawn from the Montalban Reservoir. Results are shown in the following table. The figures in the first column are average figures for a period of five years antedating the installation of the new system. Those in the second column are for the fiscal year 1911, two years after the new supply became available.

	Average for—	
	5 years.	1911
Dysentery.....	339	132
Diarrhea and enteritis:		
Persons under 2 years of age.....	277	235
Persons over 2 years of age.....	343	144
Diarrhea and chronic enteritis.....	228	113
Convulsions of children.....	1,921	500
Meningitis, simple.....	450	71
Total.....	3,558	1,195

Typhoid fever is omitted for the reason that the diagnoses of this disease in Manila are notoriously unreliable. Cholera is not included for the reason that the cases which have so far occurred in Manila have not been connected with the public water supply. Convulsions of children here have been definitely ascertained to be, in the very large majority of cases, due to neglected intestinal troubles. Simple meningitis is included not because it is an intestinal disease, but because an extensive series of autopsies has shown that with the exception of a few cases of tubercular meningitis all cases diagnosed as meningitis were in reality cases of intestinal trouble.

The total number of deaths from these causes for 1911 was 1,195. The previous average annual total for 5 years was 3,558. The value of a human life in the United States, based on probable earning power, has been estimated at \$995 at 4 years and \$4,000 at 30 years. If on account of decreased earning capacity in the Orient we estimate the average value of a life at so low a figure as \$500, the saving during the year mentioned would be ₱2,366,000, certainly fair interest on the investment made in the new water supply.

Mariquina River water was again used from June 28, 1911, to July 27, 1911, and from March 9, 1912, to May 24, 1912, with a resulting prompt increase in the death rate, as appears from the following table:

	Normal.	1911		Normal.	1912
July.....	745	830	March.....	611	732
August.....	705	878	April.....	564	671
September.....	656	741	May.....	585	701
Total.....	2,106	2,449	Total.....	1,760	2,104

It would appear that there had been approximately 687 more deaths during the year than probably would have occurred had the Montalban water supply been continuously available. Owing to this circumstance, the death rate of Manila, which during the early part of the year was exceptionally low, has been materially increased.

#### LOW DEATH RATE AMONG GOVERNMENT EMPLOYEES.

The death rate among Government employees for the year was but 5.65 per thousand. For 2,824 Americans it was 8.46 and for 6,571 Filipinos it was 4.44, which is an extraordinarily satisfactory result.

#### BERIBERI AND POLISHED RICE.

At the Hongkong meeting of the Far Eastern Association of Tropical Medicine there was brought forth the strongest possible confirmation of the theory first announced at the Philippine meeting of this association in 1910 that beriberi is associated with the continuous consumption of polished rice as a staple article of diet. Further convincing evidence was forthcoming from Japan, China, French Indo-China, the Philippines, Siam, the Straits Settlements, and the Federated Malay States.

Interesting results have been obtained by Dr. Vedder, of the Army board for the study of tropical diseases, by the administration of an extract made from rice polishings in cases of infantile beriberi. He treated 15 cases with no deaths, the usual mortality in such cases being 50 per cent. The extract in question is now being experimented with upon a larger scale.

#### HOSPITALS AND SANITATION AMONG THE WILD TRIBES.

A modern 30-bed hospital of brick, with ample facilities for the treatment of outpatients and with quarters for part of the personnel, has been opened at Bontoc. It has been crowded from the outset. In fact, the patients were only too glad to lie on the floor before beds were received. This institution has been doing a wonderful work among people who prior to the American occupation were absolutely without medical or surgical assistance of any kind. Dispensaries with a few beds each, have been opened at Quiangan, Cervantes, Tagudin, Banaue, and Tuao. A temporary hospital has been opened at Butuan and a fine site for a good permanent building has been secured.

Sanitary conditions in towns like Bontoc and Cervantes are excellent, while in the Bukidnon towns they are extraordinarily good. Considerable progress has been made in vaccinating members of wild tribes.

Important results have been accomplished by Dr. Ampil in the Subprovince of Butuan, where he has brought about a steady decrease

in the death rate of a number of towns. The employment of one lone sanitary inspector has been a boon to the Subprovince of Bukidnon, where the people were previously absolutely without medical aid, and the kindly gratuitous services freely rendered by Dr. Madison H. Bowman, the medical officer of the scout company at Malaybalay, have added very heavily to the burden of debt which the good people of this subprovince owe to the government.

If the charitably inclined in the United States could form the faintest conception of the good which physicians and surgeons can accomplish among the non-Christian peoples of the Philippines and of the gratitude which the latter feel and show toward those who cure them of their bodily ills, they would certainly be glad to aid in this splendid work. Many pages in the daily journals of the men now engaged in it read like romance.

#### STERILIZATION OF WATER WITH ULTRA-VIOLET RAYS.

Amoebæ pass through all filters ever experimented with at Manila. Preliminary laboratory tests with ultra-violet rays have shown that they destroy bacteria and amoebæ as well. The expenditure of ₱4,500 for an experimental plant for determining the extent of these rays upon a considerable quantity of water has been authorized. It is hoped that a method of sterilizing water upon a large scale has at last been found.

#### PROGRESS IN THE PROVINCES.

Progress has been made in improving sanitary conditions in the provinces. This is due in part to the absence of epidemics of contagious disease and in part to the fact that the sanitary condition of Manila has now improved so far as to make it possible to utilize in the provinces a considerable number of employees previously required for work within the city limits. The persistent educational campaign carried on through the public schools, the rapid installation of artesian wells and other sanitary sources of purer water supply, the building of drainage systems and of new markets, and the increased interest in municipal cleanliness have combined to produce this greatly to be desired result.

#### MANILA MILK SUPPLY.

The milk sold in Manila is bad. The best of it contains a minimum of 35,000 bacteria per cubic centimeter. Ordinary milk often has 60,000,000 bacteria or more per cubic centimeter, with numerous pathogenic organisms. The bureau of health is negotiating for the use of an adequate sterilizing plant and if this can be obtained will request the passage of an ordinance requiring the pasteurizing of all milk and its sale within a reasonable time after such treatment.

Preserved milk of excellent quality is obtainable here, and its use steadily and quite rapidly increases.

#### PRISON AND JAIL SANITATION.

A uniform system of prison and jail sanitation has been established through the medium of a circular of instruction, approved by the



THE OLD BONTOC HOSPITAL.

This rough structure was built with waste lumber from an old schoolhouse. Hundreds of sick and injured Igorots were cured in it.



**THE NEW BONTOC HOSPITAL.**

**Built of brick burned by Igorots. This series of hospital buildings, modern in every respect, have been crowded from the day they were finished.**

Fig. 1. A view of the interior of the building.







**THE NEW BONTOC HOSPITAL.**

**Built of brick burned by Igorots. This series of hospital buildings, modern in every respect, have been crowded from the day they were finished.**



PART OF A WARD IN THE NEW BONTOC HOSPITAL.

Sick and injured Igorots were only too glad to lie on the floor until beds were available.



STAFF OF THE NEW BONTOC HOSPITAL.

The Igorots in this picture are servants.



#### FIRST AID TO THE INJURED.

Dr. Rembe is prepared to sew up a 10-inch cut in a man's forearm. A second patient, with his hand up to open, waits at the left. Note the unconcerned expression on the faces of the injured men.



director of prisons and mailed to all district health officers. I have found the sanitary conditions of all provincial prisons and jails which I have been able to inspect excellent.

#### THE INSANE.

A law for the commitment and control of the insane was passed at the last session of the Legislature. Funds sufficient for the proper care of these unfortunates are lacking. Of the 3,543 known insane persons in the Philippines, only 360 are at present in institutions, while the number badly needing institutional care is at least 2,000. To give such care would involve an appropriation of at least ₱640,000 for buildings and an increased annual operating cost of ₱500,000.

#### NEED OF BETTER FOOD CONTAINERS FOR SUPPLIES SHIPPED TO THE TROPICS.

American manufacturers and exporters should interest themselves in providing better containers and in employing better packing methods for products intended for use in the Tropics. Shipments for the Philippines are too often prepared as they would be for brief railway journeys in the United States. This leads to heavy losses from heat, humidity, and insect pests. Paper or cardboard packages are highly unsuitable. Tin, glass, or other similar material should be used. Proper attention to these details would greatly increase the sale of cereal products, and would enable American exporters better to meet the competition of foreign countries, which have learned the necessity for great care in shipping to the Tropics.

#### ANTIMOSQUITO CAMPAIGN AT MANILA.

Manila can not be permanently rid of mosquitoes without the expenditure of several millions of dollars for engineering work. Under ordinary conditions the city is kept reasonably free from these pests by the work of a brigade costing approximately ₱2,000 per month.

Extraordinarily low water in the Pasig River, due to the unprecedented drought, caused sea water to extend far inland during the high tides of June. As a result, countless myriads of black, night-flying, salt-water mosquitoes were bred in places which had never previously produced them. There followed a widespread and severe epidemic of dengue fever. The mosquito plague disappeared only after the first heavy rains again filled breeding places with fresh water.

#### THE ENFORCEMENT OF THE PURE FOOD AND DRUGS ACT.

The pure food and drugs act has been energetically and strictly enforced. There have been some bitter protests from importers, accompanied by allegations that products allowed to be used in the United States were refused entry here. In one specific instance it was claimed that a shipment of codfish denied entry here was passed by United States chemists at San Francisco on its return. This statement ultimately proved to be false.

Every effort has been made to deal justly with all concerned. Reanalyses, known to be needless, have often been made merely to

promote good feeling. On the whole, the attitude of importers has perhaps been more friendly than could have been expected, and a great service has been rendered to the public by strictly enforcing this very important law.

#### SEWER CONNECTIONS.

The sanitary betterment of the city of Manila is still seriously handicapped by the continuance of an injunction granted by the court of first instance which prohibits the bureau of health from compelling private owners to connect with the sewer system, and there have been even fewer connections made than during the previous year. The case is now pending before the supreme court. Should the decision be favorable to the bureau of health, the work of completing the establishment of the 6,000 connections needed will be greatly expedited.

#### INSTALLATION OF ARTESIAN WELLS.

This most important sanitary measure has been actively pushed throughout the year by the bureau of public works. One hundred and sixty-four wells have been installed, all but 21 of which are successful. An unforeseen advantage was gained during the drought in that the artesian wells continued to flow abundantly where all usual sources of drinking water supply failed. Great inconvenience and much ill health were avoided by having available these sources of pure drinking water.

The total number of successful wells bored to June 30, 1912, was 680. Since their installation the mortality has decreased 50 per cent in some of the towns benefited by them.

#### INVESTIGATION OF DISEASES PREVALENT IN THE BATANES ISLANDS.

In response to a special and earnest request from the Batanes Islands, Delegate to the Philippine Assembly, I directed Dr. Willette to proceed to that extremely isolated region and investigate the diseases prevalent there. Infection with some form of intestinal parasites was found universal in 400 persons examined. The fever on the island of Itbayat, so greatly dreaded, proved to be estivo-autumnal malaria. Among the 12,000 peaceful, friendly people of this remote region there is not a single physician. What an opportunity for charitable medical work!

#### IMPROVEMENT IN MEANS FOR DISPOSAL OF HUMAN FECES.

The proper disposal of human feces presents the most difficult sanitary problem awaiting solution in the Philippines. The propagation of diseases like cholera, bacillary dysentery, and typhoid fever by flies has been and is a very serious matter. Hookworm disease is spread as the result of the deposition of feces on light sandy soils. Water-closets of any sort are comparatively rare and those which exist are for the most part highly insanitary. The bureau of health has devised a simple receptacle for the present kerosene oil tin, covered by an automatically closing fly-proof lid. In all cases where its contents are properly disposed of this receptacle solves the problem.

## IMPORTANT LEGISLATION.

Material benefit is anticipated as a result of the passage of Act No. 2156, entitled "An act authorizing the consolidation of municipalities into sanitary divisions and the reorganization of the municipal boards of health created by act numbered three hundred and eight; defining their powers and duties, and providing for each Province a special fund to be known as 'Health fund,' for this and other purposes." This act should result in materially improving health conditions in provincial municipalities. It ought to be known as the Fajardo Act on account of the valuable services rendered in connection with its drafting and passage by Hon. Jacobo Fajardo, Delegate from the second district of Pampanga.

By Act No. 2116 provision was made for a committee to investigate the causes of the excessive infant mortality in the Philippines and to recommend measures which should be adopted to decrease such mortality. The act appropriated ₱10,000 for these purposes.

Act No. 2147 appropriated ₱50,000 to aid the Antituberculosis Society, ₱12,000 for the protection of infants through the institute known as La Gota de Leche, and ₱8,000 to aid the Mary J. Johnston Hospital.

Act No. 2161 has the effect of increasing the number of nurses at the Philippine Nurses Training School. While the total number authorized during any given year remains unchanged the limitation on the number that might be appointed annually, which worked to keep the total constantly below that authorized by law, has been stricken out. This is a very important matter, as the services of more trained nurses are most urgently needed, both in Manila and in the provinces.

## THE SOUTHERN ISLANDS HOSPITAL.

This institution, which is even more modern than the Philippine General Hospital, was ready for occupancy in January, but as the Legislature failed to pass an appropriation bill, and as the institution was not in existence at the time the last previous appropriation bill was passed and hence was not provided for, it has been impossible to open it. This is greatly to be regretted.

It has at present a capacity of 60 beds and at small additional cost could be made to accommodate 100. It is earnestly hoped that it may soon be opened. Meanwhile, the furnishing of such medical and surgical relief as is most urgently necessary has been provided for by securing the hospital of the railway company at Cebu.

## FREE DISPENSARIES

The bureau of health operates five dispensaries in Manila and five in the provinces. It aids the dispensaries of the University Hospital, the Mary J. Johnston Hospital, St. Paul's Hospital, and San Juan de Dios, as well as those of the Antituberculosis Society, and sends out hundreds of boxes of simple remedies and surgical dressings to its own officers, missionaries, school-teachers, and other persons.

Its free dispensary at the Philippine General Hospital ranks among the principal clinics of the world, having surgical, genito-urinary, gynecological, obstetrical, pediatric, neurological, dermatological, dental,



psychopathic, general medical, and eye, ear, nose, and throat departments. This dispensary is now treating patients at the rate of 80,000 per year.

#### BOARD OF MEDICAL EXAMINERS.

The work of the board of medical examiners has proceeded without interruption and registrations have been made as follows:

Doctors of medicine.....	24
Licentiates of medicine.....	41
Cirujanos ministrantes.....	9
Midwives.....	0
Total.....	74

#### BOARD OF PHARMACEUTICAL EXAMINERS.

For a number of years this board has had a most extraordinary history. Each succeeding period of examinations has been ushered in by unpleasant rumors of crookedness in connection with examinations, followed by more or less definite charges that questions to be asked had been given out in advance; that there had been personal discrimination between candidates by examiners; that ridiculously low or absurdly high marks had been given, etc. During the year 34 applicants were examined and only 1 passed. Instruction in pharmacy is at present undoubtedly deficient. Enmities exist between the faculties of different schools and the situation is most unpleasant.

The personnel of the board has been repeatedly changed without any corresponding change in results, and the plain truth is that the secretary of the interior and the director of health are at their wits' end to know what to do.

#### BACILLARY DYSENTERY.

Outbreaks of this disease have been reported in the Philippines from time to time. It has prevailed in some Igorot settlements from which laborers came to work on the railroad grading at Baguio. Some of these men brought the disease with them and it spread to government employees there during the early part of the season. A pest of flies which prevailed at this time facilitated its spread. Ten thousand pesos were made available for use by the bureau of science in combating insect pests, flies, and mosquitoes at Baguio, and an active and energetic campaign was waged, which resulted in the disappearance of the flies and of the bacillary dysentery as well.

#### BERIBERI.

Not a death from beriberi occurred in any government or public institution in which unpolished rice was continuously used. There were formerly at least 600 deaths annually from beriberi in such institutions. The disease practically disappeared while unpolished rice was used exclusively and promptly reappeared when unusual conditions rendered necessary the temporary resumption of the use of polished rice. At the Culon leper colony this was followed by a

prompt increase in the death rate, amounting to more than 300 per cent within three months. Mongos were liberally supplied and undermilled rice was obtained as soon as possible. The death rate then quickly dropped to normal.

#### CHOLERA.

A small outbreak of cholera in La Union abruptly yielded to the usual sanitary measures, with a total of 48 cases. One case of cholera occurred at Manila, with no spread of the disease.

#### DIPHTHERIA IN MANILA.

Since 1904 there has been a fairly steady increase in the number of cases of diphtheria in Manila. During 1912 they numbered 49. Special instructions have been given for combating this disease, which fortunately is as yet little known here.

#### LEPROSY.

Eight hundred and fifty-five lepers were taken to the Culion leper colony during the year. Five hundred and thirty-one died there, the net increase in the number of the colony being 324 and the total being 2,615 at the end of the year. The total number collected since the work of isolation began is 6,695, of whom more than 3,000 have come from Cebu. This island, with one-tenth of the population of the Philippines, furnished about half of the lepers.

A study of the ages of lepers at the colony shows that approximately one-third of them are between 17 and 25 years of age, and the fact that the disease is not necessarily speedily fatal is quite conclusively proved by the presence of a leper 101 years old.

Chaulmoogra oil, when taken continually over long periods of time, continues to prove most useful in treating this disease, and results in some apparent cures. Unfortunately, most persons experience great difficulty in taking it.

#### MALARIAL FEVER.

Certain regions of the Philippines, and especially of Mindoro, Palawan, and Guimaras, continue to be centers of pernicious malarial infection. The possibility of successfully combating it has been conclusively demonstrated at the Iwahig penal colony.

The property of the Mindoro Co., which originally formed a part of the San José friar estate in Mindoro, has been an especially serious source of infection. While the representatives of the owners of the San José estate proper were willing to act on every suggestion of the health authorities, the manager of the Mindoro Co. was shamefully neglectful in failing to take the most rudimentary precautions.

After milder means had been exhausted, I left a competent complaining witness on the ground, with instructions to prosecute him persistently until he was brought to reason. Subsequent improvement in sanitary conditions has been rapid, and this region should soon become as healthful as the Iwahig penal colony.

**MEASLES.**

An outbreak of measles which began in Manila in 1911 was probably introduced by passengers on Army transports from the United States. The type of disease is severer than that previously prevalent here, which practically never caused death. Of the 534 persons known to have been attacked during the year 23 have died.

**PLAGUE.**

The first case of plague in a human being which has occurred for six years was detected at Manila on June 17, 1912. The total number of cases to September 15, 1912, was 7. The only rats found infected have been in the immediate region where these cases have occurred.

The fact that there has been no infection among the rats along the piers and in other parts of the city would seem to negative the theory that infected rats have landed on the piers from ships, and it is believed that the infection must have been introduced by a rat or rats in cargo, such as potatoes, which is brought in considerable quantity to this particular region. As it is practically impossible to open all individual freight packages of this sort the possibility of the introduction of plague in this way must be faced.

**SMALLPOX AND VARIOLOID.**

There have been no deaths from smallpox in Manila since 1905. Thousands of deaths occurred annually before the bureau of health inaugurated its vaccination campaign. Three hundred and ninety-three males and 207 females contracted varioloid during the year, but there was not a single death. The limited number of deaths which have occurred in the provinces have almost invariably been among children born since the last systematic vaccination carried out under the directions of the bureau of health, and have resulted from the fact that the local officers who should attend, during January and July of each year, to the vaccination of newborn children and of any unvaccinated persons coming into their territory fail to perform their duty. Unless and until the local authorities will exert themselves sufficiently to take the simple measures necessary to prevent the recrudescence of diseases like smallpox, the withdrawal of American control from the Philippines would spell certain disaster.

**TUBERCULOSIS.**

The systematic campaign against tuberculosis in the Philippines is largely conducted by the Philippine Antituberculosis Society, to which organization direct appropriations are made by the Legislature. The bureau of health furnishes such assistance as it can give. It has set aside two wards at the San Lazaro Hospital for advanced cases, and conducts a tuberculosis camp in connection with the hospital at Baguio, where there have been obtained many encouraging results, demonstrating the excellence of the Baguio climate for tuberculosis patients.

## WORK OF THE INSPECTION DIVISION.

The heavy burden of work resting on the inspection division will be realized in a measure when it is remembered that this division has charge of the following: House to house inspection to determine general sanitary conditions and to detect cases of communicable disease; inspection of dairies, laundries, bakeries, and tobacco factories; disinfection; mosquito extermination; rat extermination; physical examinations; collection of samples for routine examination; food and drugs inspection; presidents of municipal boards of health; inspection of sanitation of railroad construction camps; school inspection, together with such special inspections and investigations as may be directed. An enormous amount of work has been performed during the year.

## CULION LEPROSY COLONY DIVISION.

More progress in the satisfactory development of the Culion leprosy colony has been made during the year than during any similar previous period. Many of the buildings have been repaired; 10 new reinforced concrete structures and 4 previously begun have been completed, and 3 are now under construction. Not only has the sanitary condition of the colony been greatly improved but much has been done toward its beautification by the planting of some 4,000 ornamental trees, shrubs, and plants. The water-supply system has been materially improved. Storage and transportation facilities have been increased. The furnishing of good fresh bread to colonists and employees has been the cause of universal satisfaction.

Twelve colonists who had been treated with chaulmoogra oil were sent to Manila apparently cured of leprosy, but it was subsequently necessary to return two of them who suffered relapse.

There have been theatrical performances, track athletics, and baseball games at the colony. The spirit among the colonists improves and it is believed that the day will soon come when lepers will voluntarily present themselves there for treatment.

## PHILIPPINE GENERAL HOSPITAL DIVISION.

Shortly after this great institution opened its doors and long before it was operating at anything like its full capacity, I was called to the United States. Through an extraordinary combination of circumstances the director of health and the chief of clinics at the hospital were necessarily absent during the same period. At this time the institution also lacked a technically trained superintendent. Upon my return from the United States I was kept in the provinces for some time by official business. A brief inspection, shortly after I resumed duty at Manila, revealed the existence of conditions such as to demand, in my opinion, a thorough investigation of the institution in all of its branches. Owing to the absence of the director of health, I was forced personally to undertake this work. I called upon the auditor's office for assistance in connection with technical matter with which I did not consider myself competent to deal unaided. The assistance requested was promptly and effectively rendered.

As was to be anticipated under the circumstances, serious administrative defects were found. The methods of storing and accounting for property were unsatisfactory and losses had resulted. The ambulance service was bad. The office force was far from adequate. Medical records were not properly protected nor were they being kept up to date. The buildings were not so clean as was desirable, and the grounds in their vicinity were in a deplorable state of disorder and neglect. Servants were inefficient and slovenly. These conditions were the natural result of a lack of effective supervision over the building up of so large an institution.

Reforms were at once instituted. The grounds are now most attractive and both grounds and buildings are kept in admirable condition. Servants have been organized and neatly uniformed, and are efficient. Storage facilities for property have been improved and a simple and effective accounting system has been established. The ambulance service now works with the smoothness and certainty of a well-organized fire service. The medical record system has also been effectively reformed.

With regret I found that several members of the hospital staff had been guilty of improper conduct. Of these, I severely reprimanded three, removed one, and insisted upon the resignation of one. These measures were, in my opinion, indispensable to the establishment and maintenance of a proper service and of discipline. They produced the desired result. The institution is at present in a high state of efficiency.

The hospital staff is able and well organized. The institution is well known throughout the length and breadth of the islands, and Filipinos are coming to it from all over the Archipelago. With unexpected promptness, and to an unanticipated extent, it is fulfilling the ends for which it was created, which are, first, the cure of the sick and the injured and, second, the furnishing of facilities for practical instruction in medicine and surgery.

The latter end has been accomplished by placing at the disposal of the faculty of the college of medicine and surgery of the University of the Philippines 200 free beds. The members of this faculty control the admissions to these beds, provide all needed medical and surgical care for their occupants, and as all charity patients are admitted subject to the condition that their cases may be studied, there result unrivaled facilities for practical instruction in medicine and surgery.

Under existing provisions of law, the secretary of the interior is authorized to require the services at this hospital of any medical officer of the government, subject to the approval of the proper secretary of department or of the board of regents of the University of the Philippines, as the case may be. He is thus enabled, in selecting a staff, to draw upon the whole body of medical men employed by the bureau of health, the bureau of science, and the university. As no request of his for a medical officer has ever been denied, it follows that the present staff is, in his opinion, the ablest which could be drawn from the material available. A proper regard for economy and efficiency naturally resulted in the selection of a large proportion of its members from the faculty of the college of medicine and surgery.

The growth of the Free General Hospital Dispensary has been phenomenal. During the fiscal year 1911 it treated 24,335 patients and filled 39,178 prescriptions. During the fiscal year 1912 it treated 64,673 patients and filled 83,517 prescriptions. It is now treating patients at the rate of 80,000 per year.

The hospital proper is constantly taxed to its full capacity, and it has been necessary to turn away a large number of would-be patients on account of lack of accommodations.

The work of the eye, ear, nose, and throat department has been especially noteworthy. Dr. Rembe, aided by his Filipino assistant, Dr. Ubaldo, performed 925 major operations, 1,440 minor operations, made more than 11,000 dressings, and 1,228 refractions of the eyes.

#### TRAINING OF FILIPINO NURSES.

This most useful work continues to result very successfully. On April 9, 1912, 35 young Filipino women were given the degree of graduate nurse. All but one of the 1912 graduates have continued in the employment of the government. Both during their training and subsequently they have given willing, cheerful, and efficient service and have proved themselves to be good nurses.

It has proved feasible and desirable to extend the nurses' training course to three and one-half years.

As yet the demand for well-trained Filipino nurses in government institutions far exceeds the supply. When this ceases to be the case, there will still be an almost limitless field before them in the provincial municipalities. As district nurses they can render invaluable service in cooperation with local health officers. A beginning in this latter work has already been made in the Province of Cebu.

#### ADDITIONAL DORMITORY FACILITIES NEEDED.

Although a fine building on the hospital grounds has been fitted up as a home for pupil and graduate Filipino nurses, additional dormitory facilities are urgently needed, especially for the graduate nurses. In my opinion, a building similar to the present nurses' home should be erected in the immediate future, on the ground adjacent to the present nurses' home and facing Taft Avenue.

#### NEED OF A SEWER SYSTEM FOR BAGUIO.

It is a lamentable fact that sufficient attention has not been given to sanitation in connection with the development of the summer capital of the Philippines. The lack of any general sewer system, the inadequacy of the septic vaults, neglect of the advice of medical men, and failure to observe sanitary ordinances, resulting in the accumulation of garbage and horse manure, have now been definitely demonstrated to be responsible for the outbreaks of bowel trouble which have occurred there from time to time. The recent effective measures taken to clean the place up have resulted in reasonably good conditions, but thoroughly satisfactory results can be obtained only by the establishment of a sewer system. This should be provided for as soon as possible. It is most unfortunate that even in a relatively small number of cases the wonderful effect of the Benguet climate should be lost as a result of infection with preventable diseases.

## DIVISION OF SANITARY ENGINEERING.

On August 1, 1911, the sanitary engineer of the bureau of health assumed the duties of sanitary engineer of the city of Manila, an arrangement which materially promotes efficiency and economy and does away with the previously existing dual authority.

The annual report of the director of health gives a very complete summary of health conditions throughout the islands, with comprehensive statistics. Many facts of interest are necessarily excluded from this report, and for them reference is made to the above-mentioned report of the director.

## BUREAU OF QUARANTINE SERVICE.

Under the existing arrangement the quarantine service of the Philippine Islands is conducted by the United States Public Health Service like any other branch of the work of that service, except that the insular government appropriates funds sufficient to meet the expense involved.

The proper performance of this work is a matter of vital importance to the Philippine Islands, distant as they are but two to five days from several of the great Asiatic centers of distribution of dangerous communicable diseases. From the day of its establishment it has been carried on with a very high degree of efficiency and has undoubtedly saved the insular government heavy expenditures by preventing the introduction of epidemic diseases.

The methods of the service are progressive. Investigations as to the danger of introduction of Asiatic cholera by bacilli carriers who show no outward manifestations of the disease have been made through the medium of comprehensive stool examination. The five hundred and fifty-seventh person examined furnished a liberal supply of active cholera vibrios although apparently in perfect health. As the islands are now believed to be entirely free from cholera, the prevention of its introduction becomes a matter of very great importance, and the inadequacy of methods heretofore employed to achieve this result has thus been conclusively demonstrated. It is proposed hereafter to make stool examinations a part of the regular routine of quarantine inspection for all steerage passengers proceeding from countries where cholera exists.

## PLAGUE.

Perhaps the greatest service yet rendered these islands by the quarantine officials was the seasonable detection of undoubted cases of pneumonic plague on vessels arriving from Hongkong and Shanghai. As a result, quarantine detention of seven days for all steerage passengers and all others who had lived in close quarters with Asiatics was imposed against Hongkong on April 9 and against Amoy on April 15. The speedy detection of another case, which developed in quarantine, followed. It is not pleasant to think what the consequences of the introduction into the Philippines of this dreadful disease might be. The method in which it develops has been found to be such that only the highest degree of efficiency on the part of quarantine officials can prevent its introduction.

## COMPLAINTS OF DELAY IN INSPECTION.

The promptness with which vessels are inspected at Manila during daylight hours has long caused favorable comment, but during the past year there has been considerable adverse criticism when vessels arriving an hour or two after dark were compelled to await inspection until the following morning, the public apparently failing to appreciate the fact that good daylight is essential to a really effective inspection. The danger of the introduction of plague has fully justified the stringency which has been exercised in this matter.

## RAT QUARANTINE.

In view of the importance of rats as bearers of plague, stringent rules relative to fumigation have been insisted upon; 6,524 rats and mice are known to have been killed. Many vessels leave before the holds are free from gas, so that no reliable count can be made, and the total number of rodents thus destroyed is presumably one-third greater than that above given.

An inexpensive standard rat guard has been adopted and its use on all lines connecting with piers or lighters is enforced. Rat doors have been placed on government piers to prevent the passage of rodents from the piers to the shore, and a strict daily dock inspection has been made. The rat doors are kept closed at all times except when opened to permit the passage of trucks and other vehicles. A small door with a high coaming permits persons to pass.

The riprap work near the piers affords lodgment to a considerable number of shore rats, upon which persistent war is being waged with rat terriers, traps, and poison. In short, no possible precaution to prevent the introduction of plague by rats has been neglected. Nevertheless, after an absence of six years, bubonic plague has reappeared, probably introduced by rats brought ashore inside of packages of potatoes or other vegetables.

## MEAT INSPECTION.

Quarantine officers have, at the request of the director of health, taken over the work of inspecting meat and meat-product certificates under the pure food and drugs act. This work has assumed very large proportions.

The service has rendered important special assistance to the bureau of navigation, the civil service board, the bureau of customs, the bureau of agriculture, the weather bureau, the United States Army, the bureau of posts, and other branches of the insular government and to charitable institutions.



The following table gives some idea of the large amount and varied character of the work performed by the bureau.

*Summary of quarantine transactions, both incoming and outgoing, Philippine Islands, fiscal year ending June 30, 1912.*

	Manila.	Iloilo.	Cebu.	Cavite.	Zambo- anga.	Jolo.	Total.
Vessels inspected.....	943	103	55	7	35	16	1,159
Vessels detained in quarantine.....	63		1				64
Vessels disinfected.....	42		6				48
Vessels fumigated to kill vermin.....	391	120	59				570
Number rats killed.....	3,411	692	1,056				5,159
Bills of health issued.....	844	195	175	16	35	16	1,281
Pieces of baggage disinfected.....	36,950		523				37,473
Pieces of baggage inspected and passed.....	21,531		17				21,548
Pieces of miscellaneous cargo certified.....	1,321,434	14,046	124,024				1,590,504
Cases quarantinable diseases detected on vessels.....	9		6				15
Persons detained in quarantine.....	2,627		47				2,674
Crews inspected.....	78,136	5,676	2,898	1,499	2,329	1,097	91,635
Passengers inspected.....	87,889	2,537	350	7	1,200	624	92,907
Persons vaccinated.....	8,178	640	1,080				9,898
Persons bathed and effects disinfected.....	10,970		202				11,172

There were no transactions at the ports of Balabac or Olongapo.

Many additional and important details of the work performed may be had by reference to the annual report of the chief quarantine officer for the Philippine Islands.

#### BUREAU OF FORESTRY.

The work of the bureau of forestry has progressed without serious interruption, but this would not have been the case had not the governor general at my request made available an additional sum of ₱13,000, which rendered it possible to continue until the close of the year important field work which would otherwise necessarily have been suspended owing to a lack of funds with which to pay necessary expenses incident to keeping field parties in the forest.

#### INADEQUACY OF THE PRESENT APPROPRIATION.

I have repeatedly called attention to the inadequacy of the existing appropriation for this important bureau. At the time that the bureaus of the insular government were reorganized the sum of ₱100,000 per annum was determined upon as a suitable appropriation for forest work. Small increases have been made from time to time, both because of the impracticability of making the examinations required in connection with the sale and leasing of public lands without additional funds, and as a result of our having entered upon the wise policy of training Filipinos for the forest service—a policy which involves a temporary increase in expenditures, but should ultimately result in a material decrease in the amount necessarily expended annually for salaries and wages.

## DEVELOPMENT OF THE LUMBER INDUSTRY.

Meanwhile the work which the forestry bureau has done in determining the properties of many valuable woods not previously known to commerce, and in exploring the forests and obtaining detailed and reliable information relative to the location and abundance of tree species producing valuable woods, has brought about important development of the lumber industry. The crude Philippine ax formerly used for felling trees has been replaced by the American ax, and this is now in turn being replaced by the saw. There results a decrease in the amount of timber wasted and in the cost of felling trees.

The former slow and tedious method of hauling logs to the mill by carabao, necessitating as it did cutting the logs into very short lengths, and in many instances the cutting of comparatively small trees while larger and better ones were left to fall and rot on the ground, is giving way to the use of steam skidders and logging railways.

Experience has shown what saws and what feeds are necessary for the successful milling of Philippine hard woods, and modern sawmills are rapidly taking the place of the whipsaw, while hewn timber is becoming almost unknown.

Numerous 20-year concessions covering large forest tracts have been granted. As a result of the greatly increased amount of cutting there is need of a corresponding increase in supervision if violations of the forest act and rules, upon a large scale, are to be avoided and if the charges due upon forest products are to be collected.

**THE BUREAU OF FORESTRY SHOULD HAVE A FIXED PERCENTAGE OF THE RECEIPTS FROM FOREST PRODUCTS.**

I have long contended that the appropriation for the bureau of forestry was inadequate; that each substantial increase in the working force of the bureau was followed by a substantial increase in the cash receipts of the government, to say nothing of the increased protection afforded the public forests; and that since the legitimate work of the bureau of forestry necessarily increases with the development of the lumber business, and as the work of this bureau makes possible and directly stimulates such development, there should be established a definite relationship between the receipts of the government from the charges collected on forest products and the appropriation for the bureau. I wish now further to emphasize this point by practical illustrations.

Two years ago I informed the Commission that there was not a single forester in the great island of Mindanao, where several important concessions had been granted and where the bureau was having constant and serious trouble with violators of the forest act. No specific appropriation was then made for work in Mindanao. I was advised that it was in my power to direct that work be done in Mindanao if I saw fit, and to provide for it by discontinuing work elsewhere. I adopted this course, with the result that upon the showing of fact made at the end of the first year the continuance of the service thus established was provided for by appropriation as an additional item.

Having just completed an inspection of the more important Mindanao sawmills, I can say that the results to date have exceeded my own expectations. Mr. Lyon has brought the output of his mill at Isabela, Basilan, up to 20,000 board feet per day, and intends to double its capacity. He is now working under an annual license, but has requested information as to the general conditions under which he can secure a 20-year concession covering Basilan. A party is now in the field making the studies on which to base a definite reply to this inquiry.

Messrs. Redding & Williams, whose mill now cuts from 15,000 to 20,000 feet per day, are also planning for greatly increased capacity and for improving their loading facilities by extending their pier.

Messrs. Pujalte & Co. have just replaced their old mill at Taba Bay with a new and modern one which will cut from 25,000 to 30,000 feet per day. They have also purchased a controlling interest in the concession of Mr. José Pichel, and will soon replace the present mill with a modern two-story structure containing the best of machinery, at the same time increasing the output to 30,000 feet per day.

As the result of investigations which it has now been practicable to make, it was found that the territory granted to Mr. Pichel and to the Dumanquilas Sawmill Co. was larger than their lumbering and milling facilities warranted. It was therefore reduced, and the forest area thus made available for others was offered as a 20-year concession, with the result that there were four bidders. The acceptance of the best bid means an early increase of ₱75,000 in the annual revenue of the government, an amount equivalent to more than half the total present annual cost of operating the bureau of forestry.

In numerous other instances there has resulted increased efficiency in the forest and in the mill with a resulting increased output, and a number of other concerns are planning to add to their plants in the immediate future.

In many cases lumbermen were selecting only especially fine trees of the best species close to water, leaving heavy stands of merchantable timber which could have been logged at a profit, cutting timber to fill specific orders when received, and constantly moving logging equipment from place to place, often returning it to regions previously partially worked in order to fill some new special order, and when their profits were reduced by these unbusinesslike methods complaining that the lumber business in the Philippines was not sufficiently profitable. The policy of the bureau has been to reduce territory held by licensees to areas commensurate with their output; to increase minimum required outputs; to secure the installation of better milling facilities and modern logging equipment when practicable; to confine operations of licensees to certain definite cutting areas within their concessions until all merchantable timber above certain diameter limits is removed, always leaving seed trees for adequate reproduction, and to require competent supervision of forest operations. The adoption of this policy has not only adequately protected the forest, but has greatly stimulated the lumber industry by making it more profitable. Five new mills have been installed in the provinces.

At the present time the Philippine Islands with their enormous potential forest wealth do not produce sufficient lumber adequately to meet their own needs, while the export trade to the United States and other countries, which should be very large, is almost negligible.

If, as I believe, it has been shown that it is possible to build up a great lumber industry which will materially increase the prosperity of the inhabitants of these islands, will result in actual improvement of the forests through the cutting out of old trees and the giving of better opportunity for the development of young ones, and will actually increase the receipts of the government in an amount materially greater than the increased expense involved, then there should certainly be no hesitation in making the necessary appropriations.

The principle for which I contended was recognized in the appropriation bill passed by the Philippine Commission for the fiscal year ending June 15, 1913, the plan adopted being to give to the Bureau of Forestry for use in the territory within the jurisdiction of the Philippine Legislature 50 per cent of the revenue derived from forest products and for use in the territory under the jurisdiction of the Philippine Commission alone because of the preponderance of non-Christians among its inhabitants, 10 per cent of the total revenue, so that a total of 60 per cent would go to support the work of the bureau.

Unfortunately, the Philippine Commission and the Philippine Assembly were unable to come to an agreement and no appropriation bill was passed by the Legislature, but the Commission, in legislating for the special government provinces, carried out the policy determined upon by appropriating 10 per cent of the total annual forest revenue for forest work therein. If corresponding action is taken by the Legislature when the next appropriation bill is passed the work of the bureau will be placed upon a firm and adequate foundation.

#### FOREST EXPLORATION.

A study has been made of the hitherto unknown region comprised in the watershed of the Abulug River in Apayao, and it has been found that red lauan, white lauan, apitong, narig, narra, hagachac, and guijo are to be had in considerable quantity. The data obtained will not only serve to call attention to the possibilities of this region, but will afford a basis for so regulating the operations of future licensees as to permit the fullest possible profit without endangering the permanence of the stand.

It is well known that the Philippines are rich in mangrove swamps, which should furnish valuable building timber, firewood, and very large quantities of tan bark, but little reliable information exists as to the extent and location of these swamps. A party is now exploring those on the southwestern coast of Mindanao, and in the future this work will be extended to Palawan, to certain of the Visaya Islands, and to the coast of Luzon. A cooperative agreement has been made with the Colorado Mining Co. for the making of a detailed working plan for the mangrove areas held under license by that company in Masbate.

#### DEFORESTATION.

Although enormous areas in the Philippines are still covered with virgin forest, reckless cutting and the vicious practice so long followed in connection with the making of *cañingins* (forest clearings) temporarily occupied for agriculture and then abandoned have resulted in the complete deforestation of extensive areas, notably in Cebu, the most densely populated of the larger islands. The making of future pro-

vision for firewood and building timber in these regions is a question of present practical importance. Results thus far obtained indicate that tindalo, acle, narra, teak, molave, ipil-ipil, cacahuate, and lumbang can be grown successfully on land now occupied by cogon or worthless second-growth forest. Of these woods, the first three are very valuable for cabinet purposes and inside finishing; teak and molave are the best of construction woods; ipil-ipil and cacahuate quickly produce excellent firewood, and lumbang is valuable both for its wood, from which matches are made, and for its fruit, which furnishes a commercial oil.

#### THE MOUNT MAQUILING FOREST RESERVE.

Experiments in reforestation, and valuable silvicultural experiments as well, are being carried on in the Maquiling Forest Reserve, situated on Mount Maquiling, in the Province of La Laguna, and extending over an area ranging from a point slightly above sea level to an elevation of some 4,000 feet. This fine forest is situated near the center of an extensive deforested area, and its proper conservation and development are therefore of importance to many people. The making of improvement cuttings to bring about the more rapid growth of the more valuable tree species will result in much needless waste unless the bureau is authorized to sell the merchantable products thus obtained. I recommend that this be done and that the funds derived from such sale be made available for the furtherance of the reforestation and silvicultural experiments of the bureau.

#### FOREST SCHOOL GRADUATES.

The first class of students, numbering 16, has completed a two years' ranger course at the forest school. All of these young men are now employed in the bureau at salaries of ₱50 to ₱60 per month, and are rendering satisfactory service.

#### LICENSES.

There has been an increase of 100 in the total number of ordinary and exclusive timber licenses, and in addition there have been in force 461 firewood licenses, 569 bejuco (rattan) licenses, 339 licenses for other minor forest products, 999 gratuitous licenses for personal use, and 50 gratuitous licenses for public works, giving a total of 3,495 licenses, as against 3,460 during the previous year.

#### INSPECTION OF CUTTING AREAS.

The results of the inspection of cutting areas are increasingly satisfactory. Licensees are realizing that it is to their own interest to observe the very reasonable rules prescribed by the bureau, and the necessity for imposing additional charges as penalties for wasteful cutting arises with constantly decreasing frequency. Such offenses as occur are more frequently due to ignorance than to viciousness, and an educational campaign is being pushed as rapidly as the available force will permit.

#### INSPECTION OF PUBLIC LANDS.

Three thousand and sixty-three parcels of public lands were inspected. The number for the previous year was 1,829.

#### CALINGIN MAKING.

The making of unauthorized calingins, or forest clearings, which are invariably occupied for a season or two and then abandoned, with resulting destruction of valuable timber, and a steady increase in the areas occupied by useless cogon grass or inferior tree species, continues to be the most serious menace to Philippine forests, and has in the past resulted in the complete deforestation of extensive areas.

The bureau officials throughout the islands have made vigorous efforts to secure enforcement of the law prohibiting unauthorized calingin making. Unfortunately, there has in a number of cases been great slackness in prosecuting wanton violators of the law.

#### DESTRUCTION OF FORESTS DUE TO DROUGHT.

The extraordinary drought of the past year, unprecedented during the period covered by existing meteorological observations, has in some cases apparently killed large numbers of forest trees over extensive areas, and has led to destructive fires from which the forests of the Philippine lowlands had heretofore been almost entirely free.

#### FOREST WORK IN PALAWAN.

Heretofore lack of funds has prevented the establishment of a forest station in the great island of Palawan, where are situated very extensive public forests. Entrance into the bureau of Filipino graduates of the forest school has now made it possible to remedy this situation in part. An experienced head ranger has been assigned to Palawan and his work will be performed with Puerto Princesa as a base of operations. I have no doubt that his investigations will reveal conditions similar to those so recently remedied in Mindanao and that there will result great improvement in government supervision of cutting, increase in logging equipment, and the establishment of one or more sawmills, with resulting improvement in the forests and augmented returns to the government and to the lumbermen.

#### WORK OF FIRE WARDENS.

Under anything like normal weather conditions serious danger from forest fire exists only in the pine regions of northern Luzon. The practice of employing a limited number of fire wardens at important points in this region, such as Baguio and Bontoc, has been abundantly justified during this exceptionally dry year. Of 121 fires at Baguio, no less than 86, or 71 per cent of the total, were reported by the fire wardens. While carelessness is an important element in the starting of these fires, they are largely due to a continuance of the old Igorot custom of burning over the pine lands to improve pasturage. The resulting needless destruction of young trees is greatly to be deplored, especially in the vicinity of Baguio, where the rapid growth of the town causes a constantly increasing demand for lumber and firewood. It is in most instances impracticable to detect the persons who deliberately set these fires, which can not be prevented until the Igorots have been sufficiently educated to change their present beliefs and practices. It is highly important that all fires should be put out, and to this end they must be discovered as soon as possible after they start. The money employed in the payment of fire wardens has brought substantial returns.

## NECESSITY FOR A CHANGE IN THE LAW RELATIVE TO THE MEASURING OF LUMBER.

Under the existing law the measurements on which forest charges are based may be made on logs in the round or on sawed lumber at the mill or in the yard. I am of the opinion that the law should be so amended as to limit measuring to logs in the round, and that a proper reduction for natural defects, such as cavities, brashy heart, etc., should be specifically authorized. At present, practically without exception, measurements in the case of large concerns are made on sawed lumber as it passes through the mill, or even when stored in the yard. This practice is highly objectionable, for the following reasons: The government loses charges on all logs lost through the carelessness of lumbermen, and if timber is measured in the yard after long delay, on what has deteriorated and been destroyed, as well as on any that may have been smuggled out of the yard, stolen, or burned. But the most serious objection to this method of measuring is that it imposes no check upon the very wasteful sawing methods now prevalent in many mills, which result in the throwing away of large quantities of timber that might be saved and marketed. This causes needless financial loss both to the Government and to the lumbermen. If all timber were measured in the round, the lumbermen would be more careful in sawing their logs and would bear the full financial burden resulting from wasteful methods instead of avoiding, as they now do, payment on practically everything they waste, the present allowance for necessary waste being but 15 per cent. Several concerns have requested that their measurements be made in this way, on account of the decreased trouble to themselves, and the only determined opposition thus far encountered has been that of a concern holding a concession which contains the following language:

So long as forest laws and regulations are complied with timber will, as a rule, be measured at the mill after it is sawed and before it is shipped, and orders for payment will be issued at the time timber is measured.

I am of the opinion that my approval of the insertion of this provision was a serious error of judgment, and the concern in question has been detected in violations of the forest act and rules of sufficient gravity, in my opinion, to legalize and justify the cancellation of this provision.

## EXCLUSIVE LICENSE AGREEMENTS.

Two exclusive agreements have been granted during the year. The first of these, covering a tract of pine land near Baguio, Benguet, contained a provision fixing a maximum price at which lumber might be sold to the public. The licensee was detected in a violation of this provision, was compelled to restore the amount collected in excess of the authorized charge, and was warned that any repetition of the offense would be considered a cause for canceling the license.

The remaining agreement, covering approximately 80,000 hectares of fine timber land in Mindoro, should ultimately become a very valuable concession, the proper and required development of which should go far toward meeting the existing shortage of native lumber in the Philippine market. It is an astonishing fact that, with our enormous forest resources, lumber in considerable quantity is still imported.

For the first time in the history of the Philippine lumber industry there was competition for the Mindoro concession. Heretofore the original applicant has been the only one to submit a bid.

The changed attitude of lumbermen, as shown by the competition for this concession and for the concession on Dumanquilas Bay, is in my opinion abundantly justified by the facts. Every lumber enterprise in the Philippines conducted with reasonable business efficiency is now bringing in large returns, and mill men are almost invariably using their profits to increase their plants and extend their operations.

A recent effort to discredit the Philippine lumber industry in certain of the lumber trade journals of the United States is believed to have originated with certain lumbermen who wished to secure and maintain a monopoly of the trade and the permanent maintenance of the abnormally high local prices which have heretofore prevailed. It is believed that this campaign has failed, and, as a result of the vigorous action taken by the bureau of forestry, has indeed resulted in a most desirable advertising of the commercial possibilities of the Philippine forests. Certainly nothing could be more desirable than a rapid increase in the utilization of the products of these forests, brought about in such a way as actually to benefit the forests and make of them a permanent source of wealth.

While the steady increase in the output of lumber should in the near future result in adequately supplying the local market, with the result that abnormally high prices can no longer be obtained, there is no reason to fear for the stability of the lumber industry, which, with improved methods and machinery, will be conducted on a more economical basis. We have at our very door a great possible market in China. The existing lack of a large export trade with the United States is due not to the lack of demand there, but to the inability of the local lumbermen to meet the demand which exists. The bureau has been working steadily to prepare the way for a future export business by making the properties of Philippine woods known in Europe and America, and it should be readily possible to build up a permanent and profitable export trade as soon as the necessary lumber is available.

An exceptionally favorable opportunity for advancing the work of paving the way for future export lumber trade will be afforded by the coming Panama-Pacific Exposition at San Francisco. It will be readily possible to make a very important exhibit at this time, and this should most certainly be done.

#### INCREASED EFFICIENCY OF THE BUREAU.

There has been during the year a determined effort to increase in every way possible the efficiency of the comparatively small force of workers which the present limited resources of the bureau make it possible to employ. This has involved a careful consideration of the work of the bureau, both as a whole and in its manifold details, and has resulted in eliminating some unnecessary employees, in simplifying accounting methods, in dropping some unnecessary blank forms and simplifying and improving others, and in the issuing of a manual of procedure which contains definite and detailed instructions for all classes of forest work.



## IRRESPONSIBLE CRITICISM.

I regret to state that disloyalty to the bureau and to the service has been found in the case of a very limited number of the employees, who have indulged in irresponsible criticism. It is a rule of the department of the interior that any officer or employee who desires to criticize the acts or policy of any other officer or employee of the government not his own immediate subordinate will make such criticism in writing over his own name and will transmit it to the chief of his bureau, the secretary of the department, or the Governor General, as he may prefer. An officer or employee who thus brings to the attention of the responsible authorities any matter which in his opinion demands remedial action places his own motives above suspicion and sets in motion the proper machinery for remedying any untoward conditions which may be found to exist. Any officer or employee who indulges in irresponsible criticism, especially if such criticism is made to persons not having it in their power to remedy the conditions complained of, is guilty of an improper act and in my opinion should be disciplined. It is needless to state that in dealing with the above-mentioned matter no exception will be made to the general rule.

The following table shows the revenue derived from forest products during the year:

*Revenue from sale of forest products, fiscal year 1912.*

Province.	Amount.	Province.	Amount.
Agusan.....	P 725.05	Misamis.....	P 1,003.56
Albay.....	3,996.96	Moro.....	25,066.81
Ambos Camarines.....	10,188.92	Mountain.....	4,271.87
Antique.....	306.57	Negros Occidental.....	12,899.26
Bataan.....	12,343.35	Negros Oriental.....	2,403.23
Batanes.....		Neuva Ecija.....	4,181.46
Batangas.....	3,321.44	Neuva Viscaya.....	69.79
Bohol.....	1,844.03	Palawan.....	3,053.67
Bulacan.....	5,234.69	Pampanga.....	2,545.48
Cagayan.....	10,507.49	Pangasinan.....	5,250.55
Capiz.....	2,384.09	Risal.....	2,770.88
Cavite.....	737.67	Samar.....	2,465.57
Cebu.....	8,015.82	Sorsogon.....	8,795.22
Ilocos Norte.....	1,458.20	Surigao.....	532.27
Ilocos Sur.....	3,368.88	Tarlac.....	1,076.67
Iloilo.....	20,689.11	Tayabas.....	7,721.82
Isabela.....	2,324.13	Zambales.....	1,553.95
La Laguna.....	1,153.40		
La Union.....	1,226.25	Total (net collection).....	354,685.37
Leyte.....	6,141.56	Refunds.....	15,033.92
Manila.....	168,977.12		
Mindoro.....	5,054.10	Total.....	369,719.29

<sup>1</sup> Refunds on timber used in construction and equipment of railways, Act. No. 1544.

The above list shows the places where the forest charges were collected and not always where the timber was cut. This accounts for the large receipts shown by the principal market centers, such as Manila, Iloilo, and Cebu.

For further details of the work, see the annual report of the bureau for the current year, which in this instance has been prepared by the acting director, the director being absent.

**BUREAU OF SCIENCE.****DEATH OF THE DIRECTOR.**

On April 17, 1912, the bureau of science suffered an irreparable loss in the death of Dr. Paul Caspar Freer, under whose wise and capable direction it was organized.

In 1901 an act was passed providing for the centralization of the laboratory work of the government and for its performance by a bureau of government laboratories. On June 20, 1901, Dr. Freer was appointed superintendent of government laboratories and placed in charge of this bureau. The success with which he carried out the work assigned to him led to a further centralizing of the scientific work of the government and to the establishment of the existing bureau of science, of which he was appointed director.

He was a member of the board of health which was charged with the public health work of the islands until the bureau of health was established, and in this capacity rendered distinguished service in connection with the cholera epidemic of 1902.

Dr. Freer's scientific knowledge was of extraordinary breadth and accuracy. He was an exceptionally able investigator and was particularly skillful in wisely directing the investigations of others.

He conceived and carried to a most successful issue the rather daring scheme of publishing the Philippine Journal of Science, thus making it possible to give promptly to the world the results of the large amount of scientific investigation which has been carried out under American rule in the Philippine Islands.

His activities were by no means confined to his own bureau. He took a keen interest in the plans for the establishment of the college of medicine and surgery and served as its dean until his death. He probably had a fuller knowledge of matters pertaining to university organization than had any other resident of the islands, and the president of the University of the Philippines has often publicly acknowledged the obligation which he feels to Dr. Freer for his helpful advice. He was one of the leading spirits in the organization of the Far Eastern Association of Tropical Medicine, which has brought into helpful relationship the scientists actively engaged in improving sanitary conditions throughout the Orient. With one exception he had been in the service longer than any other bureau chief. Although the work of his bureau is now in able hands and will continue uninterrupted, his own particular place can never be quite filled and the bureau of science, the insular government service as a whole, and the cause of scientific investigation and sanitary research in general lose heavily by his death.

He suffered from several acute attacks of illness prior to the one which caused his death. During these periods and for several weeks immediately subsequent to his death, Dr. Richard P. Strong, director of the biological laboratory, served as acting chief of the bureau.

Dr. Strong was also chief of the division of medicine in the Philippine General Hospital and was at the same time engaged in very important work on plague and beriberi. His health failed under the strain and he was obliged to enter the hospital as a patient. When only partially recovered from his illness he insisted upon resuming his work at a time when, in my opinion, he should have sought the

benefits derivable from a change of climate. He was, however, determined to prepare for publication the results of research work which he had completed, and fearing that an imperative order to leave the islands might do him more injury than would the continuance of his work for a brief period I allowed him to remain until it was completed. On May 26, 1912, shortly after Dr. Strong became incapacitated, Dr. Alvin J. Cox was appointed acting director of the bureau.

#### COMPLETION OF THE NEW WING.

The completion of the new wing of the laboratory building has provided adequate quarters for the division of mines, the sections of fisheries and ornithology, the entomological collections, and for the general scientific library, and the occupancy of these new quarters has made available for laboratory work rooms previously of necessity employed for purposes very different from those for which they were originally intended.

#### GROWTH OF THE WORK OF THE BUREAU.

The demands upon the bureau for routine work and for information and recommendation on scientific subjects steadily and rapidly increased. The cement testing work well illustrates this point. The following table shows the work done yearly since 1905:

	Cements tested.
1906.....	14
1907.....	185
1908.....	1,719
1909.....	3,596
1910.....	2,707
1911.....	6,542
1912 (first half of year only).....	4,563

It has been possible greatly to reduce the charge for tests as the number has increased. In 1906 it was ₱30 per sample; in 1907, ₱15 per sample, and to-day it is but ₱0.60 per sample. The practical result of the cement-testing work has been that while at the outset the government got poor cement and dealers were constantly dissatisfied, we are now obtaining good cement under modified specifications satisfactory alike to manufacturers, local dealers, and users. Incidentally it should be mentioned that the cement-testing laboratory has been entirely self-supporting.

We are now testing many other materials, such as reenforcing iron, steel, rope, wire, road materials, ties, cement pipes, concrete, mortar, building blocks, bricks, stones, cloth, and other similar materials. The machinery used can not be properly housed in any existing buildings and is in part at Bilibid Prison. The cement-testing laboratory is so crowded that one can hardly walk through it, and valuable apparatus is necessarily kept under overhanging eaves of outbuildings. This is not an economical arrangement.

All branches of the government which use construction materials realize the importance of proper tests. On this subject the director of public works has said:

This bureau recognizes the importance and necessity for scientific tests of all building construction material and believes that more adequate accommodations should be provided for this purpose.

The addition of a wing at the west end of the laboratory building similar in size to that which has recently been constructed at the east end would afford adequate space for all of the testing work above referred to and for much needed ore testing as well.

The plans for the existing new wing could be utilized, thus saving approximately ₱5,000. The remaining charges for the construction of the present wing amounted to ₱90,033.15. The importance of the work to be performed abundantly justifies such an expenditure. During one fiscal year there has been imported Portland cement to the value of ₱1,524,600. The value of the corresponding concrete was at least six times this, or ₱9,147,600. A gain or loss of 1 per cent in the efficiency of this material represents a money value of ₱91,476. This amount alone would be sufficient to build the testing laboratory.

#### ILOILO SUGAR LABORATORY.

This laboratory was opened in 1909. Although established in response to a popular demand, it was little patronized at the outset. By 1911 its work had so increased as to necessitate sending help from Manila at times. During the past year the work has further increased more than 100 per cent, and it has been necessary to assign a second man to it, thereby seriously interfering with other important chemical work at Manila.

There is every reason to believe that this work will continue to grow. It is most intimately associated with the development of one of the most important industries of the country. The Iloilo sugar laboratory should be given increased facilities, and there should be operated within easy access of it an experiment station where the results of growing cane from different countries can be ascertained and compared, and where new varieties can be propagated. It would be idle to argue concerning the cash value of such work as it is universally acknowledged.

With ideal conditions of soil and climate our average sugar crop to the acre is far below that of many other sugar-growing countries. Proper investigation and experimentation would promptly change this condition. There should be a sugar division in the bureau of science in charge of a head chemist aided by at least two assistant chemists, and ₱15,000 per year should be available for paying the salaries and other expenses of the division.

#### AQUARIUM.

The completion of the aquarium has been very greatly delayed. It has a unique setting in one of the bastions of the old city wall, and its grounds have been parked and are already beautiful. The glass intended for use in the tanks has proved too thin, having a factor of safety of less than two. The method of setting the glass provided for in the plans of the consulting architect proved unsatisfactory, as internal strains resulted. It has been decided to construct rigid iron frames with smoothly planed bearing surfaces against which the glass will be forced by uniform water pressure. Thicker glass has been ordered, and the aquarium can be opened soon after its receipt. The glass now on hand will be used later in smaller tanks.

Provision must be made for roofing the shark tank, otherwise the salt water used in the aquarium will be seriously diluted during torrential rains.

#### REPUBLISHING.

A number of books published by the bureau are, or soon will be, out of print. The demand for them continues. They ought to be republished. To avoid the necessity for more or less frequent appropriations, I recommend the establishment of a reimbursable fund to be used in republishing salable books which are out of print, the money derived from sales to be used in maintaining the fund.

#### POPULAR LECTURES.

A series of popular lectures has been given by the director and staff of the bureau of science under the auspices of the Manila Merchants' Association. They covered the following subjects:

The Bureau of Science; Its Meaning to the Commercial Public and Its Work.  
The Philippine Alcohol Industries.  
Sugar Production in the Philippines.  
Roads and Road Materials.  
The Salt Production of the Philippines.  
Gold Milling and Mills.

These lectures are to be published by the Manila Merchants' Association and bound in a memorial volume in commemoration of Dr. Freer, at whose suggestion they were given.

#### GENERAL SCIENTIFIC LIBRARY.

The general scientific library is in the custody of the bureau of science. In it are placed such of the scientific books of the government as are not needed for constant reference. To it are sent the scientific journals. These must be bound in order to make them available for reference and to preserve them. Some 2,000 volumes should be bound annually. The cost of binding during the present year has been ₱8,400, while the cost of subscriptions to scientific journals has been ₱3,791.39, making a total expense of more than ₱12,000, apart from the cost of new books. At least ₱10,000 per year should be available for keeping up subscriptions to scientific journals and for binding.

#### BIOLOGICAL LABORATORY.

The biological laboratory has been very shorthanded during the year, owing to the illness of its director and the assignment of several of its men to work under other bureaus or offices of the government, such as the University of the Philippines and the Mariveles Quarantine Station. The volume of pathological work at the Philippine General Hospital has necessitated the detail of a resident pathologist there. One or two men have also been detailed for service in connection with each of the five leper-collecting trips made by the bureau of health. Nevertheless, the routine examinations have numbered 51,941, as against 35,645 for the previous year, an increase of 45 per cent.

## PLAGUE INVESTIGATIONS.

The proceedings of the International Plague Conference, held at Mukden in 1911, of which Drs. Strong and Teague were members, have been edited by Dr. Strong and published by the bureau of printing. They make a noteworthy contribution to the literature of plague.

Cultures and pathological material brought from Manchuria, together with the observations made there by Drs. Strong and Teague, have made possible an extended study of the pathology, epidemiology, prophylaxis and immunity of pneumonic plague, and the important results of this study have been published in number 3 of section B of the Philippine Journal of Science for 1912.

## AMEBIC DYSENTERY INVESTIGATIONS.

Very important investigations of entamebic dysentery have seemed to demonstrate that the cultivable amebæ common in surface water supplies are neither parasitic nor pathogenic; that *Entameba coli* is parasitic but not pathogenic; and that *Entameba histolytica* is both parasitic and pathogenic to man, causing the disease known as amebic dysentery. If these conclusions are correct, the common amebæ in surface water are harmless, and the direct or indirect sources of all infections in amebic dysentery are the existing cases.

## THE HERBARIUM.

The total number of mounted specimens now in the Herbarium is 106,579, of which some 66,500 are Philippine. This collection, including as it does types or cotypes of nearly every known Philippine plant described within the past 10 years, is an asset of immense scientific value. Its cash value is at least ₱20,000. An exchange of botanical material for books has added many valuable volumes to the general scientific library.

Although great progress has been made, there still remain enormous areas in the Philippines which are botanically unknown or very imperfectly known. The percentage of novelties in collections is very high and many new forms are found even in collections from regions considered to be well known.

## WORK OF THE ENTOMOLOGICAL SECTION.

The year has been marked by an increasing amount of routine work in the determination of injurious and other insects, in suggesting methods of combating the existing insect pests of households and farms, in giving information, oral and written, as to silk culture and its possibilities, in the mounting of material collected or donated, and in the care of a rapidly growing collection of Philippine insects which has no equal anywhere in size or in number of identified specimens. More than 30,000 insect specimens were added during the year.

The successful campaign against flies and mosquitoes carried out at Baguio by Mr. Banks has already been referred to.

## SECTION OF FISHERIES.

Special attention has been given during the year to economic fishery work. Papers relating to the shells used in the manufacture of buttons, those used in windows, tortoise shell, trepang, the shark-fin industry, and the manufacture of leather from marine skins have been published in the Philippine Journal of Science. These papers show that several profitable new fishing industries could be inaugurated in the Philippines.

Interest in the game fishes in the islands is increasing in a marked degree. It is confidently anticipated that in the not distant future sportsmen will come from all over the world to fish in Philippine waters, which offer extraordinary attractions. A card record of the game fishes of the islands, showing the location of all important catches, is being kept to the end that reliable information may be furnished those who desire it.

## LABORATORY OF GENERAL, INORGANIC, AND PHYSICAL CHEMISTRY.

The routine work of the laboratory of general, inorganic, and physical chemistry has increased enormously, as is shown by the following table:

Nature of analysis or test.	1910	1911	1912
Rocks and minerals.....		25	46
Soils, fertilizers, cements, and clays.....	3,342	3,738	8,636
Metals and alloys.....	24	46	38
Road materials, stone, gravel, sand, and concrete.....		440	248
Water.....	82	164	148
Calorimeter determinations of fuels.....		29	9
Boiler tests of coal.....		10	2
Coal analyses.....		154	20
Standardizations of weights and measures; sets.....		1,066	990
Miscellaneous <sup>1</sup> .....	248		248
	3,606	5,672	10,381

<sup>1</sup> Work classified under "Miscellaneous" in 1910 is largely segregated in 1911 and 1912.

In performing this work the bureau of science has served 17 other bureaus of the government, and the city of Manila, the United States Army and Navy, and numerous provincial and municipal governments as well. The public is more and more frequently consulting the scientists of the bureau on practical questions pertaining to mining and on other commercial and industrial problems. In addition to the routine work there have been carried on an extended study of Philippine soils and an investigation of the oxidation and deterioration of coal. Important work has been done on sand-lime brick, and it has been demonstrated that an excellent product can be made from local materials. The same statement holds for Portland cement.

## LABORATORY OF ORGANIC CHEMISTRY.

This laboratory is chiefly occupied in performing work necessary in connection with the enforcement of the pure food and drugs act. There were 1,921 samples examined during the year, an increase over the previous year of 29 per cent.

## DIVISION OF MINES.

There have been made 216 assays for private persons, 20 free assays for prospectors in new districts or on official requests, 327 assays on black sand research, 18 bullion assays, and 141 placer weighings. Tests have been made of ores from a number of places in the Philippines and from China, the bureau of science laboratory being the only place in the Orient where such work can be performed. Investigations into ores and ore deposits have already proved important to the mining industry.

The study of the geology of the Philippines has progressed slowly, owing to the very numerous requests from private persons for the services of the geologists to investigate and report on geological or engineering problems of economic value. The bureau makes reports of two kinds: (1) Confidential reports for private persons. The charge is ₱50 per day for the services of the chief of the investigating party and all expenses of the party. (2) Reports which are available for publication after six months. Such reports are undertaken only when it is believed that information of value to the public can be obtained. The charge is ₱8 per day for the chief of the investigating party and all expenses of the party.

The results of the investigations of the Paracale black sands have been particularly interesting, showing that the values thrown away in the black sand concentrates, or lost on account of the large quantities of black sand present, are almost equal to the value recovered by the dredge. Important results were obtained from screen tests, amalgamation tests, concentration tests, and magnetic separation tests.

The results of the year's field investigations into mineral deposits are set forth in the fifth annual bulletin of the mineral resources of the Philippine Islands.

## POWER PLANT.

The existing plant has necessarily been run close to the danger limit in providing the light, power, hot water, steam, and vacuum required by the bureau of science, the college of medicine and surgery, and the Philippine General Hospital, but relief will be had in the near future. The installation of a new boiler unit is nearly complete and a 67-horsepower Otto producer gas plant is now being erected. This plant alone will furnish sufficient light and power for the three institutions above named. If it proves a success, it will materially decrease the cost of power production and will introduce a cheaper power for manufacture in the Philippines.

## NEED OF AN INSTRUMENT MAKER.

Much work has been done in the machine shop, where standard measures have been manufactured or corrected and surgical instruments, beds, sterilizers, and nickel-plated objects have been repaired. The large amount of expensive apparatus now owned by the several colleges of the University of the Philippines and by the bureau of science makes it highly desirable to secure the services of a competent instrument maker, thus avoiding the heavy cost and long delay now necessarily incurred in sending instruments and apparatus away for repair.



## COST OF ELECTRIC CURRENT.

The cost of electric current continues to decrease. It has been ₱0.10279 per kilowatt hour.

## LEAKAGE IN THE GENERAL HOSPITAL TUNNEL.

Of the total steam generated in the engine room during the year 5.46 per cent was consumed in pumping water out of the tunnel carrying the wires and pipes to the Philippine General Hospital. The bureau of public works has attempted to water-proof the tunnel so that this needless, heavy, continuous expense may be avoided. Rain water has not since invaded the tunnel in quantity, but there have not been storms sufficiently severe to give a final test.

## PUBLICATIONS.

Heretofore it has not been my custom to list in detail the publications of the members of the bureau of science staff, but in order to give an adequate idea of the importance of the research work carried on by these men I here insert a list of the papers published during the year in the Philippine Journal of Science, marking with an asterisk (\*) the names of the authors who are members of the bureau of science staff.

SECTION A.—*Chemical and geological sciences and the industries.*

- \*COX, ALVIN J. Philippine soils and some of the factors which influence them.
- HERRMANN, RAY. A theory on the formation of the central Luzon plain.
- \*BROOKS, BENJAMIN T. New Philippine essential oils.
- \*— Editorial: The fluctuation in the value of ylang-ylang oil and some of its causes.
- \*SMITH, WARREN D. Geological reconnaissance of Mindanao and Sulu. III, General and economic geology.
- \*FERGUSON, HENRY G. The geology and mineral resources of the Aroroy district, Masbate.
- \*SMITH, WARREN D., and \*EDDINGFIELD, FRANK T. Additional notes on the economic geology of the Baguio mineral district.
- \*ADAMS, GEORGE I., and \*PRATT, WALLACE E. Geologic reconnaissance of south-eastern Luzon.
- \*COX, ALVIN J. Chemical and physical characteristics of Philippine coal.
- \*GIBBS, H. D., and \*HOLMES, W. C. The alcohol industry of the Philippine Islands. Part II, Distilled liquors: Their consumption and manufacture.
- \*GIBBS, H. D., and \*AGCAOILI, F. Soja-bean curd, an important oriental food product.
- \*GIBBS, H. D. The interference of hydrogen peroxide with the milk tests of formaldehyde.
- \*GIBBS, H. D., \*WILLIAMS, R. R., and \*PRATT, D. S. Methyl salicylate. III, The coloration of methyl salicylate and some allied compounds in the sunlight.
- \*GIBBS, H. D., and \*AGCAOILI, F. The alcohol industry of the Philippine Islands. Part III, Fermented beverages which are not distilled.

SECTION B.—*Medical sciences.*

- \*WALKER, ERNEST LINWOOD. A comparative study of the amoebae in the Manila water supply, in the intestinal tract of healthy persons, and in amoebic dysentery.
- \*SELLARDS, ANDREW WATSON. Immunity reactions with amoebae.
- CHAMBERLAIN, WESTON P. Typhoid fever in the Philippine Islands.
- BLOOMBERGH, HORACE D. The Wassermann reaction in syphilis, leprosy, and yaws.
- \*CROWELL, B. C. Addison's disease and adrenal tuberculosis.

- ARON, HANS, and HOCSON, FELIX. Rice as food. Investigation of the nitrogen and phosphorus metabolism on a diet consisting principally of rice and other vegetable foodstuffs.
- CHAMBERLAIN, WESTON P., and VEDDER, EDWARD B. The effect of ultra-violet rays on amoebae, and the use of these radiations in the sterilization of water.
- A second contribution to the etiology of beriberi.
- A study of Arneth's nuclear classification of the neutrophils in healthy adult males and the influence thereon of race, complexion, and tropical residence.
- The so-called X-bodies as artefacts in glass slides.
- CHAMBERLAIN, WESTON P. Observations on the influence of the Philippine climate on white men of the blond and of the brunette type.
- A study of the systolic blood pressure and the pulse rate of healthy adult males in the Philippines, based on 6,847 blood-pressure readings on 1,489 individuals and an equal number of pulse counts on the same persons. 127 p.
- The red blood corpuscles and the hæmoglobin of healthy adult American males residing in the Philippines. Based on 1,418 red cell counts and 1,433 hæmoglobin estimations performed on 702 soldiers.
- The occurrence in the Philippines of associated spirochætæ and fusiform bacilli in ulcers of the throat (Vincent's angina), of the mouth, and of the skin, and in lesions of the lungs (bronchial spirochaetosis).

## THE PHILIPPINE JOURNAL OF TROPICAL MEDICINE.

- \*FREER, PAUL C. The result of the past two years' work in the study of tropical sunlight.
- \*CROWELL, B. C. Mucocoele and diverticulum of the vermiform appendix of inflammatory origin.
- CHAMBERLAIN, WESTON P., VEDDER, EDWARD B., and \*WILLIAMS, ROBERT R. A third contribution to the etiology of beriberi.
- \*WALKER, ERNEST LINWOOD. The Schizogony of *trypanosoma evansi* in the spleen of the vertebrate host.
- ANDREWS, VERNON L. Infantile beriberi.
- \*GIBBS, H. D. A study of the effect of tropical sunlight upon men, monkeys, and rabbits, and a discussion of the proper clothing for the tropical climate.
- HEISER, VICTOR G. Typhoid fever in the Philippine Islands from the sanitary standpoint.
- FOX, CARROLL. Some common siphonaptera of the Philippine Islands.
- \*STRONG, RICHARD P. I, Introduction. The expedition to Manchuria and the conditions under which the work was performed there.
- \*STRONG, RICHARD P., and \*TEAGUE, OSCAR. II, The method of transmission of the infection in pneumonic plague and manner of spread of the disease during the epidemic.
- \*TEAGUE, OSCAR, and \*BARBER, M. A. III, Influence of pneumonic plague.
- \*STRONG, RICHARD P., and \*TEAGUE, OSCAR. IV, Portal of entry of infection and method of development of the lesions in pneumonic and primary septicæmic plague. Experimental pathology.
- V, Clinical observations.
- VI, Bacteriology.
- \*STRONG, RICHARD P., \*CROWELL, B. C., and \*TEAGUE, OSCAR. VII, Pathology.
- \*STRONG, RICHARD P., and \*TEAGUE, OSCAR. VIII, Susceptibility of animals to pneumonic plague.
- IX, Protective inoculation against pneumonic plague.
- \*BARBER, M. A. X, Immunization of guinea pigs by vaccination with a virulent plague bacilli mixed with agar.
- XI, The infection of guinea pigs, monkeys, and rats with doses of plague bacilli ranging from 1 bacillus upward.
- \*BARBER, M. A., and \*TEAGUE, OSCAR. XII, Some experiments to determine the efficacy of various masks for protection against pneumonic plague.

## SECTION C.—Botany.

- BECCARI, O. The palms of the island of Polillo.
- \*FOXWORTHY, F. W. Philippine dipterocarpaceæ.
- GAMBLE, J. SYKES. A new species of schizostachyum.
- \*ROBINSON, C. B. Urticaceæ from the Sarawak museum.
- Philippine urticaceæ, II.
- DUNN, S. T. Philippine milletias.

- \*ROBINSON, C. B. *Alabastra philippinensis*, III.  
 COPELAND, EDWIN BINGHAM. *Cyathes species novae orientales*.  
 RADLKOFER, L. *Simarubacearum genus novum philippinense*.  
 \*MERRILL, E. D. The Philippine species of *begonia*.  
 AMES, OAKES. Notes on Philippine orchids with descriptions of new species, IV.  
 BRAND, A. Additional Philippine *symplocaceae*, II.  
 BROWN, W. H. The mechanism of curvature in the pulvini of *mimosa pudica*.  
 COPELAND, E. B. The genus *theyeria*.  
 — The origin and relationships of *tænitis*.  
 COPELAND, EDWIN BINGHAM. New or interesting Philippine ferns, VI.  
 — New Sarawak ferns.  
 — New Papuan ferns.  
 GROVES, H. & J. *Characeae* from the Philippine Islands.  
 WESTER, P. J. A contribution to the nomenclature of the cultivated anona.  
 \*MERRILL, E. D. *Sertulum bontocense*: New or interesting plants collected in Bontoc Subprovince, Luzon, by Father Morice Vanoverbergh.  
 — Notes on the flora of Manila with special reference to the introduced element.  
 AMES, OAKES. Notes on Philippine orchids, with descriptions of new species.  
 V, The genus *Bulbophyllum* in the Philippine Islands.

#### SECTION D.—General biology, ethnology, and anthropology.

- WORCESTER, DEAN C. Newly discovered breeding places of Philippine sea birds.  
 — Hybridism among boobies.  
 \*MCGREGOR, RICHARD C. Record of a puffinus new to Philippine waters and description of a new species of micranous.  
 SHUFFELDT, R. W. The skeleton in the flying lemurs, *Galeopteridae*.  
 PEARSE, A. S. Concerning the development of frog tadpoles in salt water.  
 \*BEYER, H. OTLEY, and BARTON, ROY FRANKLIN. An Ifugao burial ceremony.  
 GRIFFIN, LAWRENCE EDMOND. A check list and key of Philippine snakes.  
 \*SEALE, ALVIN. The fishery resources of the Philippine Islands. Part IV, Miscellaneous marine products.  
 \*MILLER, MERTON L. The non-Christian people of Ambos Camarines.  
 GRIFFIN, LAWRENCE E. The structure of the pallial tentacles of lima species.  
 MOSER, J. Beitrag zur coleopteren Fauna der Philippinen.  
 HOLLISTER, N. A list of the mammals of the Philippine Islands, exclusive of the Cetacea.  
 GRIFFIN, LAWRENCE EDMONDS. The anatomy of *Aclesia freeri* new species.  
 PEARSE, A. S. A new Philippine fiddler-crab.  
 FELSCH, CARL. Zwei neue Lucaniden de Philippinen.  
 WAGNER, HANS. Ein Neues Apion von den Philippinen.  
 HELLER, K. N. Eine neue Gattung der Discolomidae (Coleoptera) aus der orientalischen Region.  
 PEARSE, A. S. The habits of fiddler crabs.  
 \*MILLER, MERTON L. The Mangyans of Mindoro.  
 SCHNEIDER, E. E. Notes on the Mangyan language.  
 BEDDARD, FRANK E. The *Oligochaeta terricolae* of the Philippines. Part I, The Genus *Pheretima*.

#### THE FLORA OF MANILA.

A manual of Philippine silk culture was issued early in the year and the printing of *The Flora of Manila*, by Mr. E. D. Merrill, has begun.

There has been a constant and increasing demand for some book which would enable students in the schools and others to take up the study of botany and to identify at least the commoner plants. The *Flora of Manila* will supply this want, and since the flora of the coast regions throughout the greater part of the Archipelago is similar to that of Manila and vicinity the book will be useful throughout the Philippine lowlands.

Further details of the work of the bureau of science will be found in its annual report prepared by the acting director.

**PHILIPPINE WEATHER BUREAU.**

The Philippine Weather Bureau has continued to perform, with its usual high degree of efficiency, its very valuable work of seasonably sending out warnings of the approach of the violent storms which periodically sweep through the Archipelago.

**ILLNESS OF THE DIRECTOR.**

To my great regret it has been necessary to allow its director, Rev. José Algué, S. J., to take a somewhat prolonged leave on account of serious ill health. Father Algué has, however, planned to spend his leave in ways which will be of profit to the insular government service and to meteorological science. Having been requested by the Bureau of Navigation of the Navy Department to state what modifications might be necessary in order to make his barocyclometer available for use in the Atlantic Ocean, he will consult the records of Belen Observatory of Habana in order, if possible, to reach a final determination in this matter. He will also endeavor to arrange, during his stay in Europe, to have the instrument placed on the market at a lower price. His work at Manila remains in the competent hands of assistants trained under his direction.

**INCREASED USEFULNESS OF THE BUREAU.**

Father Algué has been tireless in his efforts to increase the practical usefulness of his bureau by extending the storm-warning service and by promptly replying to the constantly increasing number of requests for detailed information relative to climatic conditions in different regions of the Archipelago.

**IMPROVEMENT IN TELEGRAPHIC SERVICE.**

There has now been brought about a complete unification of the hours for the exchange of telegraphic advices relative to weather conditions between Japan, Formosa, the Philippines, Indo-China, Hongkong, and Zikawei, which greatly facilitates the making of really serviceable weather maps.

**SEISMIC DEPARTMENT.**

The present very complete equipment of the seismic department has rendered possible the carrying out of important studies which are being made in cooperation with scientists similarly engaged in other parts of the world.

The number of earthquakes reached the high figure of 230, exceeding the previous year's total by 42. Fortunately none of them was of destructive violence.

**ASTRONOMICAL DEPARTMENT AND MAGNETIC DEPARTMENT.**

The valuable work of the astronomical department and of the magnetic department has continued. Neither in the one case nor in the other do the results of this work lend themselves to a report

of this character. They will be found set forth in the annual report of the director of the weather bureau.

#### THE AMBULONG SEISMOLOGICAL STATION.

On February 1, 1912, the Philippine Legislature passed Act No. 2115, entitled "An act for the protection and assistance of persons living in the vicinity of Taal Volcano." This act was passed as a result of the dreadful loss of life caused by the destructive eruption of Taal Volcano which occurred on January 30, 1911. It provides for the establishment of a seismological station by the weather bureau near Taal Volcano, with a view to the issuance of timely warnings of any future threatened serious outbreak, and also for the purchase and maintenance by the bureau on Bombon Lake of a good launch designed not only to facilitate visits to the volcano but to be available in establishing and maintaining communication along the lake shore in the event of any future serious eruption.

Buildings for the station have already been completed, and as soon as the instruments are in place there should begin a series of investigations which will assuredly be of great scientific interest, and may prove of great practical value as well.

#### BUREAU OF LANDS.

##### INSUFFICIENCY OF THE SURVEYING AND DRAFTING FORCE.

The work of the bureau of lands has been kept well up to date throughout the year with the exception of surveying and drafting. The force at present available for this purpose is inadequate to meet existing needs, and in spite of the fact that its members have been called upon for overtime these branches of the work have steadily remained two or three months in arrears.

##### FRIAR LANDS.

The expectation that the receipts from friar lands for the fiscal year 1912 would exceed those of 1911 was not realized as the unprecedented drought seriously affected the rice crops on estates in the Provinces of Laguna, Rizal, and Bulacan and greatly injured crops of every description on the estates in Cebu. The resulting distress led the Legislature to pass an act making mandatory the suspension of rents or payment of installments of purchase price on friar lands if the crops were so injured or destroyed that their value was less than one-half of the value of an average annual harvest. This legislation led to the suspension of payments on estates in Cebu, Cavite, Rizal, and Bulacan and influenced unfavorably collections on all estates, although no suspensions were needed or authorized on the four estates in Laguna Province. It has now been held by the attorney general to be invalid, but the director of lands and the secretary of the interior are using their own powers to suspend payments, in accordance with the obvious will of the Legislature.

The following statement shows in summary form the results of the work accomplished during the year (in round figures) compared with that of the previous year:

Decreased area occupied (1½ per cent of the total area).....	hectares..	2, 417
Number of lots sold increased.....		5, 207
Number of lots leased decreased.....		203
Total number of lots disposed of increased.....		5, 004
Area sold increased.....	hectares..	7, 405
Area leased decreased.....	do.....	849
Total area disposed of increased.....	do.....	6, 556
Percentage area disposed of increased.....	per cent..	4.3
Value of lots sold increased.....		\$1, 390, 234
Value of lots leased decreased.....		65, 061
Total value of lots disposed of increased.....		1, 325, 173
Annual contracted installments (without interest) increased.....		40, 277
Annual contracted rentals decreased.....		1, 977
Total contracted income (without interest) increased.....		38, 300
Receipts from rents decreased.....		43, 513
Receipts from sales decreased.....		71, 656
Receipts from interest increased.....		108, 834
Total receipts from all sources decreased.....		10, 180
Administrative expense decreased.....		44, 935
Irrigation expense increased.....		7, 669
Total current expense decreased.....		37, 266
Status at close of the year:		
Value of lots sold to date (40,729 lots, or 88,272 hectares).....		13, 559, 457
Value of lots leased to date (1,016 lots, or 3,225 hectares).....		268, 921
Value of lots disposed of to date (41,745 lots, or 91,497 hectares)....		13, 828, 378
Value of lots undisposed of to date (8,206 lots, or 62,981 hectares)...		4, 275, 867
Annual contracted rentals.....		10, 372
Annual contracted installments (without interest).....		677, 972
Annual contracted interest.....		480, 000
Total contracted income (estimated).....		1, 168, 344
Estimated delinquent installments outstanding.....		200, 000
Estimated interest on delinquent installments.....		131, 656
Interest accrued on undisposed land.....		210, 447
Total receipts from all sources for the year.....		830, 002
Possible receipts for the fiscal year 1913, provided all collections are made.....		1, 500, 000

The statement following shows in tabulated form the progress on friar lands estates during the year.

Statement showing progress on friar estates during fiscal year ending June 30, 1912.

Estate.	Area.	Esti- mated occupied.	Percentage of total area, number of lots and area disposed of, and method.				Total disposed of.			
			By sale.		By lease.		Total disposed of.		Per cent of area.	Area.
			Number of lots.	Per cent of area.	Number of lots.	Per cent of area.	Number of lots.	Per cent of area.		
	Hectares.	Per cent.								Hectares.
Banilled.....	1,872	75.0	778	28.1	387	44.1	1,135	72.2	72.2	1,351
Binaog.....	1,262	82.0	422	81.0	4	1.6	426	82.6	82.6	1,233
Bidani.....	3,584	94.0	2,943	94.9	.....	.....	2,943	94.9	94.9	3,410
Cabamba.....	13,016	52.0	2,108	51.0	9	0.1	2,118	51.1	51.1	6,457
Davao.....	375	100.0	375	100.0	.....	.....	375	100.0	100.0	6,925
Davao.....	633	100.0	633	100.0	.....	.....	633	100.0	100.0	926
Guiguinto.....	17,165	47.0	5,673	48.1	51	0.9	5,724	47.0	47.0	8,082
Ibaba.....	19,507	0.3	4,187	77.3	.....	.....	4,187	77.3	77.3	3,983
Labrador.....	3,097	88.0	1,401	94.6	83	2.1	1,484	94.6	94.6	3,323
Malina.....	3,515	100.0	1,401	100.0	.....	.....	1,401	100.0	100.0	13
Matano.....	2,819	74.0	1,334	72.0	.....	.....	1,334	72.0	72.0	2,030
Muntinupa.....	7,271	54.0	1,890	52.0	29	0.3	1,919	52.3	52.3	3,904
Naga.....	3,864	85.0	643	67.4	27	15.2	670	82.6	82.6	3,149
Orion.....	3,813	81.0	2,891	60.8	1	.....	2,892	60.8	60.8	5,457
Pineda.....	11,134	100.0	2,891	100.0	.....	.....	2,891	100.0	100.0	22,485
San Fernando de Malabon.....	27,485	100.0	2,891	100.0	.....	.....	2,891	100.0	100.0	57
San Marcos.....	9,559	40.0	1,745	23.9	24	0.6	1,769	24.5	24.5	3,281
Santa Cruz de Malabon.....	10,107	85.0	3,453	85.1	241	2.4	3,694	87.5	87.5	6,054
Santa Clara de Paudi.....	3,249	82.0	2,633	87.9	.....	.....	2,633	87.9	87.9	4,615
Santa Rosa.....	6,922	100.0	6,939	88.9	147	15.4	7,086	90.3	90.3	6,940
Tala.....	8,188	35.0	6,397	30.7	23	0.6	6,420	31.3	31.3	2,556
Talaya.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total.....	154,478	61.5	40,739	57.2	1,016	2.1	41,755	59.3	59.3	91,497
Total previous year.....	164,446	65.0	38,523	52.4	1,219	2.6	39,742	55.0	55.0	84,941

Estate.	Annual contracted receipts, excluding interest on deferred payments.			Receipts for fiscal year.					
	From rents.	From sales.	Total.	Rents.	Miscellaneous: Grazing, timber, and stone permits, sale of old timber.	Sales.	Interest on deferred payments.	Recovery of costs in court cases.	Total receipts.
Banlad.....	P1,657.00	P10,552.00	P12,209.00	P1,052.50	.....	P11,900.00	P6,560.97	.....	P19,468.17
Binagbag.....	26.00	2,825.00	2,851.00	35.00	.....	169.00	15.77	.....	219.77
Bifan.....	.....	36,644.00	36,644.00	.....	P147.88	41,499.00	20,714.63	P28.00	62,379.51
Calamba.....	125.00	57,350.00	57,475.00	155.20	1,558.55	80,104.00	33,249.17	28.00	115,094.92
Dampol.....	.....	8,940.00	8,940.00	1,831.00	150.00	7,510.98	4,918.98	10.00	14,430.86
Guilguinto.....	.....	9,137.51	9,137.51	.....	.....	8,178.44	4,361.84	.....	13,538.28
Imus.....	1,285.00	100,659.00	101,944.00	2,066.03	659.60	18,647.00	4,719.81	70.30	26,162.74
Isabela.....	.....	.....	.....	.....	.....	14.00	1.12	.....	15.12
Lolombay.....	1,570.00	62,141.00	63,711.00	954.55	.....	29,186.00	11,320.12	65.43	41,524.11
Malinta.....	.....	26,918.00	26,918.00	845.00	.....	3,465.00	2,701.28	.....	7,011.28
Matano.....	.....	122.00	122.00	.....	.....	122.00	92.72	.....	214.72
Muntinlupa.....	.....	5,274.00	5,274.00	.....	.....	8,694.12	3,534.71	.....	12,228.83
Nalc.....	289.00	37,003.00	37,292.00	1,178.17	230.97	39,747.00	10,699.79	62.32	51,868.26
Orion.....	.....	8,446.30	8,446.30	.....	.....	3,875.78	2,141.70	.....	10,017.48
Piedad.....	281.00	18,127.00	18,408.00	35.50	.....	3,852.00	683.11	.....	4,570.61
San Fernando de Malabon.....	2.00	46,815.00	46,813.00	941.51	165.00	49,674.00	33,945.04	.....	84,726.55
San Jose.....	.....	29,846.00	29,846.00	.....	.....	29,846.00	22,742.61	.....	52,588.61
San Marcos.....	.....	565.60	565.60	.....	.....	565.60	475.11	.....	1,040.71
Santa Cruz de Malabon.....	694.00	37,598.00	38,294.00	308.00	27.00	24,108.00	7,094.72	.....	31,537.72
Santa Maria de Pundi.....	2,813.00	53,773.00	56,586.00	5,041.00	.....	28,995.00	5,774.17	82.50	36,862.67
Santa Rosa.....	.....	48,591.00	48,591.00	913.56	644.72	66,076.00	23,458.52	113.44	149,121.24
Tala.....	335.10	13,872.00	14,207.10	17.80	.....	4,101.00	2,730.19	3.00	6,851.99
Talisay.....	1,293.00	63,272.00	64,565.00	1,324.00	690.00	76,031.16	15,567.13	.....	96,652.29
Total.....	10,372.10	677,972.41	688,344.51	16,678.83	4,183.72	561,118.98	247,572.91	447.99	830,002.45
Total previous year.....	12,346.60	697,696.96	709,994.46	60,191.35	2,877.50	632,775.24	143,733.96	649.12	840,232.17

NOTE.—Changes in areas due to corrections in final surveys.



Statement showing progress on friar estates during fiscal year ending June 30, 1912—Continued.

Estate.	Current expenses.				Dedict fiscal year 1912, each estate.	Surplus fiscal year 1912, each estate.	Extraordinary nonrecurrent expenses: Surveys, preparation plans, and descriptions.
	Annual interest on purchase price at 4 per cent.	Administration.	Irrigation, maintenance, and repairs.	Total.			
Banilat.....	P8,749.98	P1,311.63	.....	P10,061.61	.....	P9,431.56	P87.13
Binalag.....	1,434.91	1,110.19	.....	1,545.10	.....	.....	.....
Bigan.....	24,083.33	3,449.72	.....	29,097.91	.....	.....	.....
Cabanga.....	55,417.72	8,514.92	P1,534.96	65,744.70	.....	53,251.40	.....
Dampal.....	6,025.40	844.75	1,811.98	6,800.65	.....	49,850.22	.....
Guiguinto.....	8,222.72	992.59	.....	7,155.31	.....	7,530.21	.....
Imbit.....	85,880.97	12,808.20	4,639.41	100,328.58	74,145.54	6,882.77	.....
Isabela.....	12,798.64	1,983.88	.....	14,772.52	14,772.52	.....	.....
Lalambay.....	35,029.65	5,980.63	1,318.94	48,299.22	14,772.52	.....	.....
Malinao.....	17,416.85	2,780.79	.....	20,397.64	13,888.38	.....	.....
Matano.....	67.20	8.47	.....	75.74	.....	.....	.....
Muntinlupa.....	3,577.08	593.45	.....	4,100.53	.....	133.98	.....
Nalac.....	39,306.48	5,345.46	.....	47,096.08	.....	8,128.30	.....
Orad.....	3,023.01	1,588.02	2,411.11	4,009.09	.....	4,802.22	.....
Pand.....	13,713.74	2,183.43	.....	15,397.17	.....	6,327.45	.....
San Fernando de Malabon.....	42,704.69	6,930.92	.....	54,938.37	10,796.56	.....	.....
San Jose.....	28,092.57	3,432.60	5,263.35	37,338.17	.....	39,787.28	.....
San Marcos.....	40,492.99	6,907.82	.....	47,390.81	.....	26,352.44	.....
Santa Cruz de Malabon.....	41,498.50	6,903.94	2,587.02	51,299.36	19,780.64	.....	.....
Santa Maria de Pandal.....	42,138.39	6,206.38	.....	48,344.31	8,951.04	.....	.....
Santa Rosa.....	38,409.39	5,271.40	1,284.55	44,965.34	.....	97,205.70	.....
Tala.....	8,094.35	7,517.36	.....	10,311.71	8,339.72	.....	4.30
Talvey.....	44,311.45	7,278.63	10.43	51,000.54	.....	42,081.78	53.78
Total.....	554,437.02	85,085.43	21,598.04	661,080.49	151,228.00	320,180.54	147.21
Total previous year.....	554,437.02	129,970.30	13,908.75	698,334.07	155,748.47	197,044.07	81,880.60
						141,885.10	

: Net surplus.

A portion of the Banilad estate is being held to await the decision of the proper authorities as to whether an Army post shall be located there. The lessees are anxious to purchase it.

Collections during the first half of the year were most satisfactory, but the ensuing crop destruction caused a subsequent serious falling off. On account of these special conditions only 25 suits were filed against delinquents. There were 274 such suits pending at the beginning of the year. The suits compromised numbered 70; executions, 42. There therefore remain pending 187 suits. Although the number of delinquents at present is larger than ever before, I believe that very many of them will pay as soon as a harvest renders it feasible for them to do so. The present total of delinquencies is approximately ₱200,000 for installments and purchase price and ₱132,000 for interest on deferred payments.

Num- ber.	Amount of loans.	Cultivation of sugar.	Purchase of cattle.	Purchase of sugar mills.
		<i>Hectares.</i>		
20	₱25,500	436	-----	-----
7	9,350	162	29	2
27	34,950	598	29	2

Four new loans were made during the year. On account of the drought and resulting crop failure nearly all of the loans which fell due during the year were renewed after investigation, showing that they were apparently well secured.

Estates are now administered through five local friar land offices under charge of Filipino agents who are supervised by three district inspectors.

The administrative expenses have decreased about 35 per cent as the result of reductions which have been feasible in the field and office force. Further reductions could be made during the present year were it not for the cost of necessary inspections and investigations in connection with requests for suspension of installments owing to the drouth.

The cost of maintenance and minor repairs of irrigation works for bringing water to some 27,000 hectares of land has been ₱21,600, which is at the very moderate rate of approximately 80 centavos per hectare per year.

In selling friar lands the limitations as to area of the public land act have been strictly adhered to, with the result that numerous sales which might have been made have been declined. The views of the director of lands and of the secretary of the interior on this subject are too well known to require restatement.

There are 62,981 hectares of vacant friar land available for sale at the average cost of ₱72 per hectare. The best agricultural public lands are purchasable at ₱10 per hectare, unless the price is raised by competitive bidding, which is practically never the case. The absurdity of attempting to sell the friar lands under the restrictions imposed upon the sale of public lands is self-evident, and this policy, if persisted in, will cost taxpayers of the Philippine Islands some ₱6,000,000, for which they will receive no substantial benefit. It

goes without saying that as equally good public lands may be purchased at prices less than those necessarily charged for friar lands the sale of the latter class of lands can not be anticipated if subject to the restrictions as to area which apply to the former class. With enormous tracts of the most valuable public lands lying uncultivated, and with the existing necessity for the importation of rice in order that the people may be fed, I believe that present restrictions on the sale of both public and friar lands are ill advised in the extreme. With severe restrictions as to cultivation we might very advantageously do away with narrow restrictions on areas purchasable.

The following tables give in detail the present status of sales and leases for each estate:

Statement showing values of *frat estates sold, leased, etc., and annual contracted income, fiscal year 1912.*

Estate.	Value of land, less improvements.	Value of land sold to date.	Value of improvements sold to date.	Value of land leased to date.	Total value of land disposed of.	Value of land not disposed of.	Annual contracted income.			
							Sale of lands.	Sale of improvements.	Leases.	Total.
Banlad.....	P282,884.60	P222,413.60		P38,942.00	P261,351.60	P21,029.00	P10,552.00		P1,637.00	P12,209.00
Binagbag.....	26,615.68	20,956.68		506.00	21,462.68	4,153.00	2,325.00		26.00	2,351.00
Bifan.....	709,977.04	684,135.04			709,135.04	25,792.00	36,644.00			36,644.00
Calamba.....	1,830,806.06	1,170,613.06	20,000.00	2,479.00	1,183,092.06	657,214.00	56,350.00	P1,000.00	126.00	57,476.00
Dampol.....	184,400.84	184,400.84			184,400.84		8,940.00			8,940.00
Guiguinto.....	200,058.16	199,045.16			199,045.16		9,137.51			9,137.51
Imus.....	2,757,576.88	1,874,301.88		25,505.00	1,899,806.88	887,770.00	100,659.00		1,285.00	101,944.00
Isabela.....	466,263.17	1,689.17			1,689.17	464,574.00				
Lolombay.....	1,288,937.56	1,067,336.56	25,000.00	31,267.00	1,143,003.56	170,334.00	26,918.00	1,250.00	1,570.00	68,711.00
Malinta.....	597,688.88	568,904.88			568,904.88	28,684.00				28,684.00
Matambo.....	2,441.00	2,441.00			2,441.00					
Muntinlupa.....	132,111.37	96,837.37			96,837.37	35,174.00				35,174.00
Nalc.....	1,153,786.53	794,182.53		5,265.00	819,445.53	354,339.00	36,003.00	1,000.00	289.00	37,292.00
Orion.....	123,538.94	116,554.94			116,554.94	7,284.00	8,446.30			8,446.30
Piedad.....	470,632.64	385,752.64		28,723.00	384,473.64	86,107.00	18,127.00		281.00	18,408.00
San Fernando de Malabon.....	1,377,373.50	995,058.50		48.00	995,106.50	882,267.00	46,816.00		2.00	46,818.00
San José.....	734,000.00	734,000.00			734,000.00		29,846.00			29,846.00
San Marcos.....	14,839.50	14,839.50			14,839.50		565.60			565.60
Santa Cruz de Malabon.....	1,346,798.63	737,174.62		13,888.00	751,062.62	597,766.00	37,598.00		694.00	38,294.00
Santa Maria de Pardi.....	1,498,853.34	1,052,139.34		55,098.00	891,046.00	391,046.00	53,773.00		2,813.00	56,586.00
Santa Rosa.....	1,126,943.21	992,749.21			992,749.21	154,194.00	48,691.00			48,691.00
Tala.....	321,337.05	278,222.05		40,719.00	318,941.05	2,896.00	13,872.00		335.10	14,207.10
Talisay.....	1,576,708.18	1,285,619.18		25,911.00	1,311,530.18	265,178.00	63,272.00		1,283.00	64,555.00
Total.....	13,224,702.80	13,469,467.80	89,989.00	268,921.00	13,828,377.80	4,486,314.00	674,722.41	3,250.00	10,372.10	685,344.51

## THE SAN LAZARO ESTATE.

The following statement shows the receipts and expenditures of the San Lazaro estate for the year:

## Receipts:

Rents received from July, 1911, to June 30, 1912, collected by collector of internal revenue..... ₱65,182.72

## Expenditures:

Salaries and wages, clerk and employees..... ₱1,836.28  
 Court costs paid..... 270.00  
 Miscellaneous: Printing, postage, supplies, etc..... 85.10  
 Proportion general office expenses, Bureau of Lands.... 1,824.01

4,015.39

## Expenditures nonrecurrent:

Surveying and drafting..... 134.53  
 Filling lowlands, 30,000 square meters..... 4,904.00

5,038.53

Total expenditures..... 9,053.92

Net income over expenditures..... 56,128.80

The tenants numbered 1,418, having decreased 13. The total contracted income is ₱57,740.04, an increase of ₱3,588. The total collections were ₱65,182.72, an increase of ₱13,711.41. Delinquent outstanding rentals have been reduced by ₱12,360.67. Sixty-seven ejectment suits were compromised by the payment of rent, 9 ejectments were made, and 1 case is pending.

At present leases may be issued for a period of not longer than 6 years. The income of the estate would materially increase were it possible to grant longer leases. It is recommended that the legislature authorize the granting of leases for terms not exceeding 50 years on a basis of an annual rental of 5 per cent of the assessed valuation, reassessment to take place every 10 years.

The following table shows public-land applications received during the year as compared with those received during the previous year:

	Fiscal year 1911.		Fiscal year 1912.	
	Number.	Area.	Number.	Area.
Homesteads.....	2,789	H. a. c. 32,525 14 05	3,105	H. a. c. 36,963 98 07
Sales.....	91	3,496 57 92	180	8,269 98 12
Leases.....	226	61,903 9 89	112	37,392 33 34
Total.....	3,106	97,924 81 86	3,397	82,625 28 43

Persons interested in the segregation of the expenses of the several estates are referred to the annual report of the director of lands, which gives the details.

## HOMESTEADS.

The increase of 316 homestead applications would be encouraging were it not that within the same period more than 400 applications have necessarily been canceled for nonpayment of the required entry fee after the applicants have had 3 notices extending over periods from one to three years. Some 600 entrymen who had elected to pay by installment have become delinquent. Contests against entries for failure to comply with provisions relative to residence and cultivation are becoming common, but have usually lacked foundation and are prompted largely by the desire of some to reap where others have sown. Of 9 cases filed in the court of land registration for tracts of land which included homestead or free patent entries, 4 were dismissed on evidence obtained by public land inspectors, and victory was obtained for homesteaders and free patent claimants in every case but 1. Detailed information relative to homestead applications will be found in the annual report of the director of lands.

## SALES.

One hundred and eighty sales applications were received as compared with 91 for the previous year. Thirty-three sales were actually accomplished, in 8 of which there was competitive bidding, the price in one instance rising to \$120 per hectare.

The table following covers all sales applications received to date under provisions of Chapter II of the public-land act.

*Detailed statement covering sales applications received under the provisions of chapter 2 of the public land act, No. 926, during the period from July 1, 1911, to and including June 30, 1912, showing the status of same June 30, 1912.*

Provinces.	Applications received.		Rejected, canceled, withdrawn.		Pending correction.		Pending report from forestry bureau.		Pending appraisal or publication notice.		Sales accomplished.		Amount received.	Balance due.	Amount of sales.
	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.			
Ambos Camarines.....		H. a. c.		H. a. c.		H. a. c.		H. a. c.		H. a. c.		H. a. c.	₱50.00		₱50.00
Antique.....	2	16 57 28			1	16 00 00	2	1 48 63			1				
Bataan.....	3	1 48 63	2	25 06 00			1	3 00 00							
Bulacan.....	3	28 06 00	5	66 11 14			2	6 03 68							
Cagayan.....	7	72 14 82	1	20 90	9	133 00 00	9	144 00 00							
Cebu.....	19	277 20 90	2	7 49 17			1	4 00 00							
Iloos Norte.....	3	11 49 17	1	16 00 00	1	90 24	1	16 00 00							
Iloos Sur.....	3	22 90 24					1	8 92 00							
Isabela.....	2	11 23 84					1	30 95 80							
Leyte.....	4	32 43 80					3								
Manila.....	1	7 00 00	1	7 00 00											
Mindoro.....	1	04 06													
Moro.....	1	200 00 00					1	200 00 00							
Mountain.....	18	5,161 21 18	3	39 04 02	6	5,012 00 00	9	94 17 16			1	16 00 00	48.00	₱144.00	192.00
Negros Occidental.....	3	19 66 93	1	5 88 35			2	13 78 58							
Nueva Ecija.....	7	112 00 00					7	112 00 00							
Palawan.....	39	473 20 52	3	36 14 52	3	48 35 00	28	341 01 00	4	31 60 00	1	16 00 00	240.00		240.00
Pangasinan.....	3	1,056 00 00					3	1,056 00 00							
Pampanga.....	15	247 26 56	1	8 00 00	14	239 26 56									
Rizal.....	6	63 51 21													
Samar.....	1	16 00 00					1	6 00 00	3	25 62 01	2	31 89 20	80.00	238.92	318.92
Sorsogon.....	3	32 34 92	1	16 00 00			2	16 34 92							
Tarlac.....	8	113 50 19	4	53 00 80			4	60 49 39							
Tayabas.....	28	284 39 47	9	70 80 75			19	213 58 72							
Total.....	180	8,269 98 12	19	203 98 16	49	5,596 71 75	97	2,343 79 88	9	61 01 85	5	64 46 48	368.00	382.92	750.92

## LEASES.

One hundred and twelve lease applications were received during the year. They cover an area of 3,739.22.22 hectares. The increase in number over the previous fiscal year was 69.

The following table shows the status of all lease applications received prior to July 1, 1912:

*Detailed statement covering lease applications received under the provisions of Chapter III of the public land act No. 986 during the period from July 26, 1904, the date of taking effect of the public land act, to and including June 30, 1912.*

Province.	Applications received.		Pending correction.		Rejected or canceled.		Pending report from Forestry Bureau.		Pending survey.		Surveyed.		Leases executed.		Annual rental.
	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	
Agusan.	6	6,144 00 00		H. a. c.		H. a. c.	6	6,144 00 00		H. a. c.		H. a. c.			
Ambos Camarines.	4	3,000 10 00			1	10 00			3	3,000 00 00					
Bataan.	11	2,245 83 68			5	725 98 62	1	117 00 00	1	500 00 00	2	770 60 40	2	131 71 73	P 99.58
Cebu.	4	23 19 25	2	10 20 05	2	12 98 20									
Iloco Norte.	1	16 00 00			1	16 00 00									
Isabela.	1	1,024 00 00	1	1,024 00 00											
La Laguna.	1	30 00			1	30 00									
Leyte.	1	20 53	1	20 53											
Mindoro.	8	3,864 16 92	3	181 71 50			2	2,048 00 00	2	1,300 00 00	1	327 66 92			
Mountain.	102	41,865 05 21	5	2,208 52 90	67	13,609 54 36	8	812 50 90	57	7,659 46 91	15	9,187 14 72	10	4,914 62 81	2,452.32
Mor.	2	40 00 00			2	40 00 00									
Misamis.	3	1,052 00 00			2	32 00 00			1	1,024 00 00					
Negros Occidental.	3	3,920 00 00			3	920 00 00									
Negros Oriental.	1	6 08 69					1	6 08 69							
Nueva Ecija.	60	21,699 05 89	15	3,202 17 86	17	7,824 25 00	13	4,452 50 00	12	2,110 53 00			3	1,821 37 23	910.67
Palawan.	18	8,064 84 00			6	1,444 00 00			7	4,408 00 00	4	1,794 30 33	1	88 84 00	41.92
Pampanga.	4	3,072 00 00	1	92 88 56	4	3,072 00 00									
Pangasinan.	3	104 44 46			1	4 00 00			1	7 45 90					
Rizal.	7	369 82 79	2	100 00 00	3	369 11 17	1	14 00 00							
Samar.	2	4 34 64			1	87 00									
Sorsogon.	2	2 42													
Surigao.	1	3,789 93 65	15	1,471 04 31	6	551 60 60	4	514 00 00	1	2 42			1	5 51 62	8.27
Tarlac.	32	1,426 00 00			1	340 00 00	7	325 28 74							
Tayabas.	3	30 00 00					2	1,086 00 00							
Union.	1	500 00 00			1	500 00 00			1	30 00 00					
Zambales.	1														
Total.	340	99,295 42 13	45	8,260 85 71	124	29,477 47 33	88	9,050 15 59	93	20,364 85 97	22	12,079 72 37	18	6,990 53 02	3,499.71



## FREE PATENTS.

Three hundred and eighty-one free patents were issued during the year, nearly all of which were for land in Sorsogon. Difficulty is encountered in getting applicants to make necessary proofs and in many instances they have to be persuaded to comply with the law in their own interest.

The work of investigating free patents has been completed in Rizal and Negros Occidental, and little remains to be done in Sorsogon and Benguet. Progress is being made in Union, Nueva Vizcaya, Palawan, Tayabas, and Batanes. Many applications are necessarily rejected because the applicants have not complied with the law relative to cultivation and occupation. Indeed, numerous applicants in Palawan have themselves asserted that they have never occupied the land described in their applications and have no intention of doing so. The following table shows the present status of all free patent applications to July 1, 1912:

Detailed statement covering free patent applications received under the provisions of Chapter IV of the public-land act No. 986, during the period from July 26, 1904, to and including June 30, 1912, showing the status of same June 30, 1912.

Provinces.	Applications received.		Rejected or canceled.		Pending investigation and survey.		Surveyed patents not issued.		Patents issued.		Contested.
	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	
Aguasan.....	1	H. a. c. 12 50 00		H. a. c. 12 50 00		H. a. c. 12 50 00		H. a. c. 12 50 00		H. a. c. 12 50 00	
Albay.....	49	230 78 92	23	133 49 03	21	128 80 06		14 23 59		14 23 59	
Ambo Camarines.....	221	1,860 63 72	135	1,189 71 40	25	276 68 53		61 513 59 11		61 513 59 11	
Antique.....	83	1,168 64 02	67	977 26 57	16	214 37 74		27 115 25 91		27 115 25 91	
Bataan.....	56	226 43 28	26	129 48 88	3	6 00 03		388 1,595 15 57		388 1,595 15 57	
Batangas.....	6	6 07 29	2	147 27 64	972	2,399 93 46		12 90 31 69		12 90 31 69	
Benguet.....	1,436	4,265 15 80	37	147 27 64	715	448 79 25		8 69 82 61		8 69 82 61	
Cagayan.....	731	5,000 04 73	16	53 25 48	26	265 51 29		15 201 40 24		15 201 40 24	
Capiz.....	772	614 65 46	30	287 83 89				14 133 72 18		14 133 72 18	
Cavite.....	1	1 29 02						4 4 16 97 66		4 4 16 97 66	
Cebu.....	24	157 28 39	13	97 28 26	1	1 92 35		1 10 74 96		1 10 74 96	
Iloocos Norte.....	19	351 06 49	12	301 54 14	417	549 52 35		345 1,497 14 32		345 1,497 14 32	
Iloocos Sur.....	50	186 45 95	32	114 45 73	114	581 60 83		104 601 39 43		104 601 39 43	
Iloilo.....	376	2,772 63 55	113	700 86 57	263	2,071 63 98		17 61 27 99		17 61 27 99	
Isabela.....	824	2,268 50 74	278	735 09 49	546	1,533 41 26					
Laguna.....	60	109 29 17	45	80 39 31							
Lepanto Bontoc.....	157	450 10 63	8	26 28 97	124	365 71 05					
Leyte.....	113	763 06 01	44	322 14 12	69	454 54 95					
Mindoro.....	77	597 06 93	21	166 44 77	42	308 89 98					
Misamis.....	30	96 85 62	16	26 50 49	10	56 41 89					
Moro.....	8	91 27 54	6	74 57 34							
Negros Occidental.....	802	4,463 01 34	354	2,256 96 13	448	2,200 05 21					
Negros Oriental.....	1,489	2,260 83 84	106	162 27 83	1,384	2,128 66 02					
Nueva Ecija.....	237	1,034 26 10	114	382 58 03	123	651 68 07					
Nueva Vizcaya.....	2,699	8,903 02 43	90	299 88 30	2,609	3,693 14 13					
Palawan.....	2,100	6,660 01 34	63	754 28 87	2,030	4,864 14 95					
Pangasinan.....	423	1,461 20 76	62	247 51 04	361	1,213 69 71					
Rizal.....	326	1,017 05 18	181	527 26 78	144	479 03 44					
Samar.....	3	18 37 00	1	1 70 00	1	16 00 00					
Sarangani.....	1,532	7,769 12 28	222	1,326 03 33	928	4,947 91 63					
Surigao.....	32	224 50 00	7	79 00 00	25	155 50 00					
Tarlac.....	243	1,928 18 38	112	1,174 26 19	7	32 86 15					
Tayabas.....	1,680	4,856 77 14	456	1,298 77 69	1,106	3,557 79 45					
Union.....	113	453 66 49	21	86 26 67	92	367 39 82					
Zambales.....	34	152 18 14	11	88 51 10	2	6 10 81					
Total.....	15,885	52,060 56 65	2,722	14,167 77 06	12,013	33,348 27 76	473	1,932 13 55	690	3,431 00 30	17 61 27 99

## TOWN SITES.

The following table shows the town sites thus far investigated, with their areas in those cases in which the surveys have been completed.

Name of town site:	Total area of town sites.	Sq. meters.
Baguio.....		55,949,800
Bontoc.....		3,766,487
Bosoboso.....		379,992
Butuan.....		493,158
Cabacben.....		1,615,378
Cervantes.....		3,439,244
Cotabato.....		408,740
Dansalan.....		645,903
Dapitan.....		2,149,132
Davao.....		2,432,815
Dipulog.....		2,861,363
Impasugong (survey incomplete).		
Jolo.....		779,726
Libungan.....		370,601
Malay-Balay (survey incomplete).		
Mailog (survey incomplete).		
Malaban.....		1,550,703
Olongapo.....		3,002,635
Parang.....		648,337
Pinamalayan (survey incomplete).		
Sibul Springs.....		250,000
Sumilao (survey incomplete).		
Tancuran (survey incomplete).		
Tarlac.....		573,694
Zamboanga.....		20,282,991

Only in Baguio and Bosoboso have lots been sold thus far. The following table shows the status of the sales up to July 1, 1912, in each case:

Name of town site.	Residence lots.	Business lots.	Total area of town site.
			Sq. meters.
<b>Baguio.....</b>			55,949,800
Lots sold.....	287	65	
Area..... square meters.....	2,747,732.84	5,088.00	
Sales value.....	P68,630.84	P2,702.24	
Receipts, principal and interest, residence and business lots.....	P68,065.06		
Balance due.....	P4,069.73		
Patents issued.....	274	62	
<b>Bosoboso.....</b>			379,992
Lots sold.....	59	18	
Area..... square meters.....	90,822	18,996	
Sales value.....	P93.96	P19.00	
Receipts.....	P112.96		
Patents issued.....	77		

The Bosoboso town site was established for the convenience of persons ejected from the Mariquina watershed and lots for such persons were paid for by the city of Manila. Subsequent purchasers of lots in this town site will themselves pay for them, as the city has now discharged its obligations in the premises.

## UNPERFECTED TITLES.

During the year the director of lands received 456 notices from the court of land registration of cases in which the applicants had requested the benefits of Chapter VI of the public-land act. The following table shows the action taken by him in each case:

	Cases.	Oppositions—Continued.	Cases.
No opposition.....	336	Mineral land.....	1
Opposition.....	99	Agricultural land.....	4
Opposition conditional.....	2	Civil reservation.....	23
Decreed.....	19		<hr/> 101
	<hr/> 456		
	<hr/>	Title applied for by—	
Oppositions:		Municipalities and townships....	125
No title.....	30	Provinces.....	6
Insufficient title.....	3	Private parties.....	325
Difference in area.....	4		<hr/> 456
Public plazas.....	19		
Public land.....	17		

## COMPULSORY REGISTRATION.

Hearings have been had in 3 cases of compulsory registration brought under the provisions of section 61 of the public-land act. The first case covered 906 lots, of which 879 were adjudicated to private persons, 3 to church societies, and 3 to municipalities, while 3 lots were declared to be public plazas and 14 were declared to be public land, leaving 4 not decreed. In the second case, covering 676 lots, 640 were adjudicated to claimants and 36 were declared to be public lands. In the third case, covering 728 lots, all but 5 were adjudicated to the parties in interest. While the cases thus far adjudicated have been very successful and the results are highly gratifying, the provisions of section 61 are neither complete nor comprehensive, and it is a matter of very great importance to property holders that a cadastral survey act identical with, or similar to, that submitted to the Legislature at its last session should be passed.

## RESERVATIONS OTHER THAN TOWN SITES.

Thirteen reservations other than town sites have been made under the provisions of Chapter VII, section 70, of the public-land act. The following table shows their character and extent:

*Reservations other than town site made under the provisions of the public-land laws during the fiscal year ended June 30, 1912.*

Purpose of reservation.	Insular.		Provincial.		Municipal.	
	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.
		<i>H. a. c.</i>		<i>H. a. c.</i>		<i>H. a. c.</i>
School.....					7	8 32 99
Watershed and pipe-line right of way.....					2	27 30 98
Civil government.....	1	27 83 25				
Township.....					3	1 22 92
Cemetery.....					1	111 53 72
Road.....			1	1 99 24		
Constabulary.....	1	21 11				
Lighthouse.....	2	50 00 00				
Non-Christian settlement.....	2	31,320 64 33				
<b>Total.....</b>	<b>6</b>	<b>31,398 68 69</b>	<b>1</b>	<b>1 99 24</b>	<b>13</b>	<b>148 40 61</b>

The following table shows the purpose and area of all reservations other than town sites made during the fiscal year ended June 30, 1912:

*Reservations other than town sites made under the provisions of the public-land laws during the fiscal year 1912.*

Province.	Purpose.	Insular.		Provincial.		Municipal.		Total number of reservations and area.	
		Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.
			<i>H. a. c.</i>		<i>H. a. c.</i>		<i>H. a. c.</i>		<i>H. a. c.</i>
Agusan.....	School.....					1	2 89 33	1	2 89 33
Batangas.....	do.....					1	69 54	1	69 54
Cebu.....	Watershed and pipe-line right of way.....					2	672 43 02	2	672 43 02
Do.....	Civil govern-ment.....	1	27 83 25					1	27 83 25
Iloocos Sur.....	School.....					1	2 34 43	1	2 34 43
Do.....	Township school.....					1	46 59	1	46 59
Iloilo.....	Road.....			1	1 99 24			1	1 99 24
Laguna.....	Constabulary.....	1	21 11					1	21 11
Manila.....	Cemetery.....					1	111 53 72	1	111 53 72
Mountain.....	Township.....					3	1 22 92	3	1 22 92
Do.....	School.....					2	90 10	2	90 10
Moro.....	Lighthouse.....	1						1	
Palawan.....	do.....	1	50 00 00					1	50 00 00
Do.....	Non-Christian settlement.....	2	31,350 64 33					2	31,350 64 33
Sorsogon.....	School.....					1	1 00 00	1	1 00 00
<b>Total.....</b>		<b>6</b>	<b>31,428 68 69</b>	<b>1</b>	<b>1 99 24</b>	<b>13</b>	<b>793 52 65</b>	<b>20</b>	<b>82,224 20 88</b>

The following table shows the character and extent of all reservations made prior to July 1, 1912:

*Reservations made under the provisions of the public-land act, to and including June 30, 1912.*

	United States Government.		Insular.		Provincial.		Municipal.	
	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.	Num-ber.	Area.
Agricultural experi-ment stations.....		<i>H. a. c.</i>	6	<i>H. a. c.</i>		<i>H. a. c.</i>		<i>H. a. c.</i>
Do.....			1	2,203 68 00				
Cemetery.....				( <sup>1</sup> )			1	111 53 72
Civil public.....			1	27 83 25	11	309 93 33	10	8 47 18
Do.....					1	( <sup>1</sup> )		
Coal.....	2	6,479 00 00						
Constabulary.....			12	47 80 88				
Customs.....			2	10 13 28				
Forest.....			1	480 00 00				
Highway.....			1	28 00 00	2	2 98 10		
Do.....			1	( <sup>1</sup> )				
Leper colony.....			1	39,672 00 00				
Lighthouse.....	3	10 00 00	38	237 75 05				
Do.....			28	( <sup>1</sup> )				
Market.....							1	20 00
Military.....	30	28,611 35 41						
Do.....	7	( <sup>1</sup> )						
Mineral Springs.....			2	4 38 91				
Monument.....			2	1 09 00				
Naval.....	2	1,681 00 00						
Do.....	4	( <sup>1</sup> )						
Non-Christian settle-ment.....			2	31,320 64 33				
Parks.....			2	1 98 80			5	2 03 30
Penal colony.....			1	8,806 00 00				
Quarantine and Marine-Hospital Corps.....			1	10 00 00				
Quarry.....			1	37 00 00	1	109 21 50		
School.....					32	781 66 50	24	28 43 82
Water power.....			1	5,900 00 00				
Do.....			1	( <sup>1</sup> )				
Wireless telegraph.....	4	3,805 00 00						
Water supply.....							4	27,131 43 02
Total.....	{ 41 11	36,882 00 00 ( <sup>1</sup> )	{ 73 32	88,771 23 00 ( <sup>1</sup> )	{ 46 1	1,204 79 34 ( <sup>1</sup> )	{ 45	27,281 56 30

<sup>1</sup> Not given.

#### APPLICATIONS TO LEASE FORESHORE AND LANDS UNDER WATER.

Eight applications to lease foreshore or lands under water were received. Of these, one has been canceled, one lease has been executed, two are ready for action, and the remaining four tracts applied for have been surveyed. Two leases have been executed in accordance with applications received during previous years. The total number of foreshore leases executed since Act No. 1564 took effect is seven, the annual rental due being ₱1,187.50.

#### MANILA RECLAMATION AREA NO. 1.

There has been more activity in applying for leases in this area than ever before, the total area leased being 27,649 square meters, at an annual rental of ₱12,442.05. Blocks Nos. 14 and 17 were reserved for the bureau of supply and block No. 87 for the sales agency, while the United States Government has decided to reserve

blocks Nos. 41 and 42 for the United States Marine Corps. Applications have been received for the rental of blocks to be used for oil warehouses, coal wharves, coal yards, lumber yards, and sawmills. The area in question is not sufficiently large to accommodate warehouses likely to be needed for other purposes not involving serious danger of fire, and I am of the opinion that leases should not be granted for these or similar enterprises. They should in future be provided for, if necessary, by the construction of another reclamation area on the north side of the Pasig River.

#### REFERENCE TO OTHER TABULAR STATEMENTS.

Tabular statements covering the subject of lands forfeited to the government for nonpayment of taxes, coal claims, and all other mining claims, will be found in the annual report of the director of lands.

#### THE CADASTRAL ACT.

On October 3, 1911, the Philippine Commission enacted "the cadastral act" (Act No. 2075), which provides certain proceedings for the settlement and adjudication of land titles in non-Christian Provinces. Its purpose was to provide a complete and comprehensive method of cadastral registration of lands in the more populous sections of such provinces. The first case filed under this act was that of the Zamboanga Townsite, and it has fully demonstrated the practicability of adjudicating all land titles and interests in a given community at one time in the same proceedings and at a very moderate cost to the parties in interest. It would be most fortunate if the provisions of this act could be made applicable to the entire Archipelago.

#### SURVEYING AND DRAFTING.

Full details relative to the surveying and drafting accomplished during the year will be found in the annual report of the director of lands.

#### THE SCHOOL FOR FILIPINO SURVEYORS.

The steady progress being made in the training of Filipino surveyors is shown by the following table:

Fiscal year.	Ap- pointed.	Dropped.	Number employed July 1.	
			Year.	Number.
1907.....	6	1	1906	6
1908.....	9	5	1907	9
1909.....	17	4	1908	22
1910.....	21	3	1909	30
1911.....	21	7	1910	34
1912.....	16	3	1911	43
Total.....	90	23		67

Some of the students employed have been placed in charge of independent work, while others have been working under the direction of American chiefs of party in the execution of property surveys.

In general their work is fairly accurate, but thus far it has proved necessary to exercise close supervision over it. On the whole, the school must be considered a decided success.

#### NEED OF A CADASTRAL SURVEY OF MANILA.

There are some 7,677 separately owned properties within the city of Manila. The increasing number of surveys ordered by the court of land registration and the cost to the government of making them demonstrates the great need of a cadastral survey of the entire city. It is believed that it could be completed within a year with six field parties at work. Property owners would be furnished with correct plans of their holdings at a minimum cost. It is thought that the total net cost to the government would not exceed P50,000, and this amount would soon be saved by the avoiding of the necessity of resurveys at government expense. Such a survey would have the further great advantage that it would finally fix the exact boundaries of all lands belonging to the insular government and to the city of Manila, so that further encroachments thereon might be prevented.

#### DEATH OF JOHN R. WALDROOP

I regret the necessity of reporting the death of Mr. John R. Waldroop, a surveyor, who was murdered about June 29, probably by "Remontados" living near Santa Inez.

He had been a faithful and efficient employee of the bureau for five years, and was a valuable man both on account of his skill as a surveyor and of his ability as an investigator. He was fearless in the performance of his duty and his untimely death is deplored.

#### RECOMMENDATIONS.

In closing, I have the honor to make the following recommendations:

1. That for the adequate protection of the non-Christian tribes a final effort be made to secure the concurrence of the Philippine Assembly in the passage for the territory under the jurisdiction of the Philippine Legislature of an act identical with, or similar to Act No. 2071, entitled "An act prohibiting slavery, involuntary servitude, peonage, and the sale or purchase of human beings in the Mountain Province and the Provinces of Nueva Vizcaya and Agusan, and providing punishment therefor," and that in the event of failure, the attention of Congress be called to this important matter to the end that it may pass adequate legislation if it deems such a course in the public interest.

2. That more adequate dormitory facilities be provided, in connection with the Philippine General Hospital, for Filipino graduate and student nurses by the construction of a second nurses' home adjacent to the existing nurses' home and facing Taft Avenue.

3. That legislation be enacted giving to the bureau of forestry at the close of each fiscal year 50 per cent of the foreign revenues in lieu of an annual appropriation for the carrying on of its work in the regularly organized provinces.

4. That legislation be enacted authorizing the bureau of forestry to sell any valuable forest products obtained in connection with



improvement cuttings made on forest reservations, the revenues from such sales to be considered as current receipts of the bureau.

5. That legislation be enacted providing that all timber cut in public forests shall, when practicable, be measured in the round and specifically authorizing a reasonable reduction for defects such as hollows and brashy heart.

6. That there be established for the bureau of science a fund to be known as the republishing fund and to be expended for the republication of saleable books issued by the bureau which are out of print, the money derived from the sale of such books to be used in maintaining the fund.

7. That a new wing be added to the bureau of science building to provide adequate quarters for the testing of cement, ores, reenforcing iron, steel, rope, wire, road materials, ties, cement pipes, concrete, mortar, building blocks, bricks, stones, cloth, etc.

8. That on account of the growing importance of the sugar industry in these islands there be established a sugar division in the chemical laboratory of the bureau of science, and that for the present ₱15,000 be appropriated annually for the salaries and expenses incident to properly conducting the work of this division.

9. That legislation be enacted authorizing 50-year leases on the San Lazaro estate, rentals to be fixed at 5 per cent of the assessed values of lots and reassessment of lots to be made every 10 years.

#### ANNUAL REPORTS OF BUREAU CHIEFS.

Attention is invited to the fact that the reports of the several directors of bureaus under the jurisdiction of the secretary of the interior are printed and may be had upon application.

Respectfully submitted.

DEAN C. WORCESTER,  
*Secretary of the Interior.*

The PHILIPPINE COMMISSION,  
*Manila, P. I.*

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**REPORT OF THE SECRETARY OF COMMERCE  
AND POLICE.**

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## REPORT OF THE SECRETARY OF COMMERCE AND POLICE.

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DEPARTMENT OF COMMERCE AND POLICE,  
*Manila, September 25, 1912.*

GENTLEMEN: I have the honor to submit the following as the report of the work of the department of commerce and police for the fiscal year ending June 30, 1912, unless otherwise stated.

The secretary of commerce and police is by law given executive control of the bureaus of constabulary, public works, navigation, posts, coast and geodetic survey, and labor, the offices of the supervising railway expert and the consulting architect, and the general supervision of all corporations other than building and loan associations, banks, and trust companies.

Certain other duties not directly connected with any bureau or office in the department have been intrusted to the secretary by statute or executive order, and brief mention of some of them is made at the end of this report.

### BUREAU OF CONSTABULARY.

#### PERSONNEL.

Brig. Gen. H. H. Bandholtz, United States Army, director of constabulary, was in charge of the bureau to February 4, 1912, on which date he was granted leave of absence. Col. J. G. Harbord, United States Army, assistant director of constabulary, was appointed acting director and was still in charge on June 30, 1912.

At his own request, Col. Herman Hall, United States Army, assistant director of constabulary, was relieved from duty with the bureau on September 23, 1911. The vacancy thus created was filled by the promotion of Capt. John B. Bennett, United States Infantry, who had served as inspector for constabulary since January 3, 1907.

Capt. Dennis E. Nolan, Thirtieth United States Infantry, inspector for constabulary, was at his own request relieved from duty on November 8, 1911. One of the two vacancies of inspector for constabulary was filled on May 22, 1912, by the detail of Capt. James C. Rhea, Seventh United States Cavalry. The other has not yet been filled.

Of the 89 officers and employees on duty at constabulary headquarters, Manila, 53 moved to Baguio, the summer capital, on February 15, 1912, and remained until June 4, 1912, Baguio being designated official headquarters during that time. The district director in command of the district of northern Luzon, with his immediate staff, transferred his headquarters from San Fernando, La Union, to Baguio, during the same period.

## STRENGTH.

On June 30, 1912, the actual strength of the constabulary was 323 officers and 4,157 men, an increase of 20 officers and a reduction of 10 men as compared with the previous year.

During the 12 months 77 officers were appointed, 44 resigned, 4 died, and 1 was dismissed. Eight hundred and twenty-seven soldiers were enlisted for the first time; 1,202, discharged because of expiration of term of service, reenlisted; 994 were discharged and did not reenlist; and 30 died. This information concerning enlisted men does not include the First and Second Moro Companies, whose returns for June 30, 1912, on account of their isolated stations, have not yet reached headquarters.

## MEDICAL DIVISION.

Strength, 17 officers and 100 men, distributed throughout the Archipelago.

Constabulary cases treated in hospitals.....	782
Constabulary cases treated in quarters.....	1, 751
Miscellaneous cases other than constabulary.....	1, 150
Members of constabulary treated by other than constabulary medical officers.....	113
Days lost in hospitals.....	13, 741
Days lost in quarters.....	12, 933

Malaria is at the top of the record with the largest number of cases, with venereal diseases second.

## PEACE AND ORDER.

Notwithstanding that the prevailing drought of the last season resulted in a scarcity of food in some parts of the Archipelago, conditions as to law and order during the fiscal year have been generally satisfactory.

*District of northern Luzon.*—This district embraces the Provinces of Cagayan, Ilocos Norte, Ilocos Sur, Isabela, La Union, the Mountain Province, and Nueva Vizcaya. No organized band of lawbreakers has operated in it during the year. The practice of head hunting among the mountain tribes has almost stopped. The Mountain Province and Nueva Vizcaya are known as "special government" Provinces, and are administered under a special statute (Act No. 1396) by the secretary of the interior. An officer of the constabulary acted as governor in the Province of Nueva Vizcaya and another as lieutenant governor in the subprovince of Ifugao, Mountain Province.

*District of central Luzon.*—The Provinces embraced in this district are Bataan, Batangas, Bulacan, Cavite, Laguna, Mindoro, Nueva Ecija, Pampanga, Pangasinan, Rizal, Tarlac, Tayabas, and Zambales. Three well known bandits were killed by the constabulary of this district, two of them leaders of a band which has for a number of years operated near the Cavite Batangas border and one a notorious constabulary deserter. There are now but two bandit chiefs at large, one in Cavite and one in Tayabas. Neither of these is active except as a fugitive. General conditions as to peace and order are good.

*District of southern Luzon.*—This district comprises the Provinces of Albay, Ambos Camarines, Leyte, Samar, and Sorsogon. The last

Pulahan of prominence in the Province of Samar, and the last active bandit in this district, Isidro Pompac, better known as "Otoy," was come upon and killed by First Lieut. Leon Puno, accompanied by detachments of the fourth and fifth companies of the Samar constabulary in October, 1911. In February, 1911, after months of persistent chasing by detachments of the regular constabulary forces, a company of Samar Pulahanes, some of whom had been with Otoy, had been organized to assist in the apprehension of this chief and the remnant of his band. This company contributed materially to the success of the constabulary. It was disbanded in November, 1911. The district director reports that conditions generally as to law and order are satisfactory.

*District of the Visayas.*—This district embraces the Provinces of Antique, Bohol, Capiz, Cebu, Iloilo, Occidental Negros, and Oriental Negros. No organized bands exist and no important leaders are at large. The last bandit of any consequence in the district was killed by the constabulary in July, 1911. Peace conditions have been satisfactory during the year.

*District of Mindanao.*—The district of Mindanao includes the Provinces of Agusan, Misamis, Moro (including the provincial districts of Cotabato, Lanao, Sulu, and Zamboanga), and Surigao. There has been a satisfactory condition of peace throughout this district except in the Lanao region and in Jolo. The carrying into effect of the disarmament order of the governor of the Moro Province, issued on September 8, 1911, has resulted in more or less disturbed conditions in the localities mentioned. Eleven men of the Lanao constabulary deserted in October, 1911, with arms. Eight of them are still at large, two have surrendered, and one has been killed. This disaffection is reported as having been due to local causes, and throws no reflection on the usefulness of the Moro, properly led, as a constabulary man.

#### BARRACKS AND QUARTERS.

The officers' quarters at Bontoc, Mountain Province, construction of which was commenced during the last fiscal year, have been completed and barracks for the enlisted men are now being built. Cost during the year ₱ 15,561.53.

At Baguio, Mountain Province, the construction of cottages for the superintendent and instructors at the constabulary school, barracks for enlisted men, a stable, and a septic vault has been completed. Cost during the year, ₱ 45,183.83.

A strong room for the storage of arms is under construction at constabulary headquarters, Manila.

The cost of alterations and additions to existing structures during the year has been ₱ 8,617.

#### PENSION AND RETIREMENT.

In every annual report of the secretary of commerce and police for a number of years mention has been made of the urgent need for the making of some adequate provision by the Government for a pension and retirement fund for the Philippine Constabulary and of the utter insufficiency of the present arrangement by which a small fund is built up out of deductions from the pay of officers and men. Under

present conditions, the following is the schedule of monthly pension payments for total disability, or death by reason of any wound, injury, or disease on account of which a man may have been drawing a pension, or on account of which had he lived he would have been entitled to a pension:

	Per month.
For a colonel and assistant director, or a lieutenant colonel and assistant director, or a major, or a captain.....	P 40
For a first lieutenant or a second lieutenant.....	30
For a third lieutenant.....	20
For an enlisted man of whatever grade.....	6

The present law provides for the retirement of an officer or enlisted man after 20 or more years of continuous actual and satisfactory service, with an annual compensation equal to 2½ per cent for each year's active service theretofore rendered by him of the total pay received annually by him at time of retirement, not to exceed the equivalent of 75 per cent of such annual compensation at that time. With the existing sources of income and the natural increase of obligations against the same this provision will be nullified a very few years after retirements begin on account of the obligations against the fund exceeding the income.

In order that a better provision for the pension and retirement of officers and men might be considered, the Governor General, on May 20, 1912, appointed a committee of three, representing the Philippine Commission, the Philippine Assembly, and the Philippine Constabulary, to study the question and prepare a bill for presentation to the Legislature. This committee has not yet completed its work, but it has already done much to arouse an interest in the subject, and it will undoubtedly recommend a bill calculated to increase the efficiency and stability of the service to an extent which will more than warrant the appropriation of funds for the purpose.

#### FILIPINIZATION.

The bureau of constabulary is in hearty accord with the policy of the Government to admit natives of the Philippine Islands to all positions in the service which they may be able to fill, and three times each year local examinations are held to determine fitness for appointment as officers. Only a few Filipinos apply for examination, and very few of the influential class, although every effort is made to attract them. Equal opportunities are offered within the organization for Americans and Filipinos, and the same standard of efficiency is required of both. It is still necessary for the bureau to depend upon military colleges in the United States for its young officers, and the proportions of Americans and Filipinos in the service remain about stationary.

#### SALARIES AND RANK.

It is again recommended that a law be enacted abolishing the grade of third lieutenant, and providing that all new officers commissioned shall enter the service as second lieutenants, serving the first two years at the pay now given third lieutenants—P2,400 per annum—and receiving at the expiration of that time, if deserving, P2,800 per annum. I recommend that the pay of captains be advanced from P3,400 to P3,600 per annum, and that of first lieutenants

from ₧2,800 to ₧3,000 per annum. Even this will not place the pay of constabulary officers of the grades named on a basis of equality with that of employees in other branches of the service in equally responsible positions.

The pay of private soldiers is much too small, being less than the pay of scouts or the wages of the common classes of servants and day laborers. Of the thousands of men who have worn the constabulary uniform, but 51 are in the service to-day who entered it in 1901. I recommend that the appropriation for the bureau of constabulary be increased to the extent that a reasonable advance in the pay of private soldiers may be granted.

#### MUNICIPAL POLICE.

Act No. 2169, passed by the Legislature on February 6, 1912, provided for the reorganization, government, and inspection of the police of the municipalities, or provinces and subprovinces organized under the provincial government act, and imposed on the bureau of constabulary, under the general supervision of the secretary of commerce and police, the duty of preparing regulations for the good government, discipline, and inspection of such municipal police, compliance with which is obligatory. The uniform, insignia, equipment, and the kind of arms to be used are prescribed by the director of constabulary, and are to be purchased with municipal funds. Only applicants who have the necessary requirements for eligibility are examined for the service, and only those who pass the examination may be appointed. The term of service is four years. Appointments to the position of chief of police are made by the provincial governor on recommendation of the municipal president, by and with the consent of the municipal council; appointments of policemen are made by the municipal president, by and with the consent of the municipal council.

The senior inspector of constabulary in each province is chairman of the examining board of three, of which the other two members are the third member of the provincial board and a municipal president designated by the provincial board. The first examinations under this law were held on June 25, 1912. Many more applications were received for the position of chief of police than policeman, and not enough passed the policeman examination to furnish a sufficient eligible list for appointment. On this account a special examination will be held in September, 1912, at which time, with the spread of knowledge of the requirements of the new law, it is expected that a sufficient number of eligibles will be secured. Subsequent examinations will be held during the month of January each year.

Under this law there will undoubtedly result a great improvement in the municipal police of the islands, one of the most apparent needs of the local administrations.

#### FIREARMS.

The number of firearms licensed by the director of constabulary, and held by government officials under special permit, in accordance with Act No. 1780, has decreased 26 during the year, the number thus held on June 30, 1912, being 6,829, as compared with 6,855 on the same date in 1911.



## COST.

The total cost of operating the bureau was ₱3,188,065.83. For the previous fiscal year it was ₱3,154,556.09.

## BUREAU OF PUBLIC WORKS.

## PERSONNEL.

Only one important change took place among the administrative officials of the bureau in the course of the year. Mr. C. G. Wrentmore, who had been with the organization since September 1, 1908, and who at the time of his separation was chief irrigation engineer, transferred on June 2, 1912, to the faculty of the Philippine University, and on the same date Mr. W. L. Gorton, an engineer of considerable experience on large irrigation projects in the United States, was appointed to succeed him.

The average number of engineers of all classes in the employ of the bureau during the fiscal year was 118 as compared with 113 during the previous year.

There are now in the service 11 Filipinos, including temporary men not having a regular civil service status, rated as engineers.

The average length of time the men of the present engineering corps have been in the service is 2 years and 9 months, an improvement of 33 per cent, and the average salary of all engineers is ₱4,146.20 per annum, also an increase over the previous year.

The total number of employees in the bureau June 30, 1912, was 1,582, of whom 553 were Americans and 1,029 Filipinos, the number of Americans having decreased 2 per cent and the number of Filipinos increased 11 per cent since the same date of the previous year.

In addition to the bureau force regularly maintained there, 44 of the officers and employees of the general office, Manila, transferred to Baguio with the director on February 22, 1912, and remained until May 2, 1912.

## PROVINCIAL DIVISION.

*Engineering organization.*—In our previous annual report it was stated that steps had been taken to make each province in the Archipelago a separate engineering unit, with a district engineer in charge of its public works, in place of the old method of having a district engineer in charge of the work in two or three or several provinces. Each of the 31 Christian provinces now has a district engineer as the single responsible head of the engineering work in that province, at all times in close touch with the provincial board and personally as much concerned in the welfare of the province as any provincial official. In practice this plan is working to the increased benefit of all concerned, particularly the provinces.

The Archipelago has been divided into five engineering divisions, each division in charge of a capable engineer. Division engineers have their headquarters at Manila, but the greater part of their time is spent inspecting the work in the provinces. They are the representatives of the central office in the field, and serve to bridge the gap between the men in the field and the administrative officials at headquarters. They quickly bring local needs and conditions to the attention of the proper superior officers, see that instructions from

9454670829

P 440637466

P-2491300.03

BUILDING WORK  
P2.657.601.33

**INCREASE IN  
EQUIPMENT  
SPECIAL FUND**

932204710

P377003, 99

ps6.812.54

p522845.69

**MISCELLANEOUS**

**IRRIGATION WORK**  
**P 578,783 23**

FOR PUBLIC WORKS P8.377.208.<sup>10</sup>

## TRANSFE

**FROM BURE**

**FROM BALA**

**Pl.343.233-53**

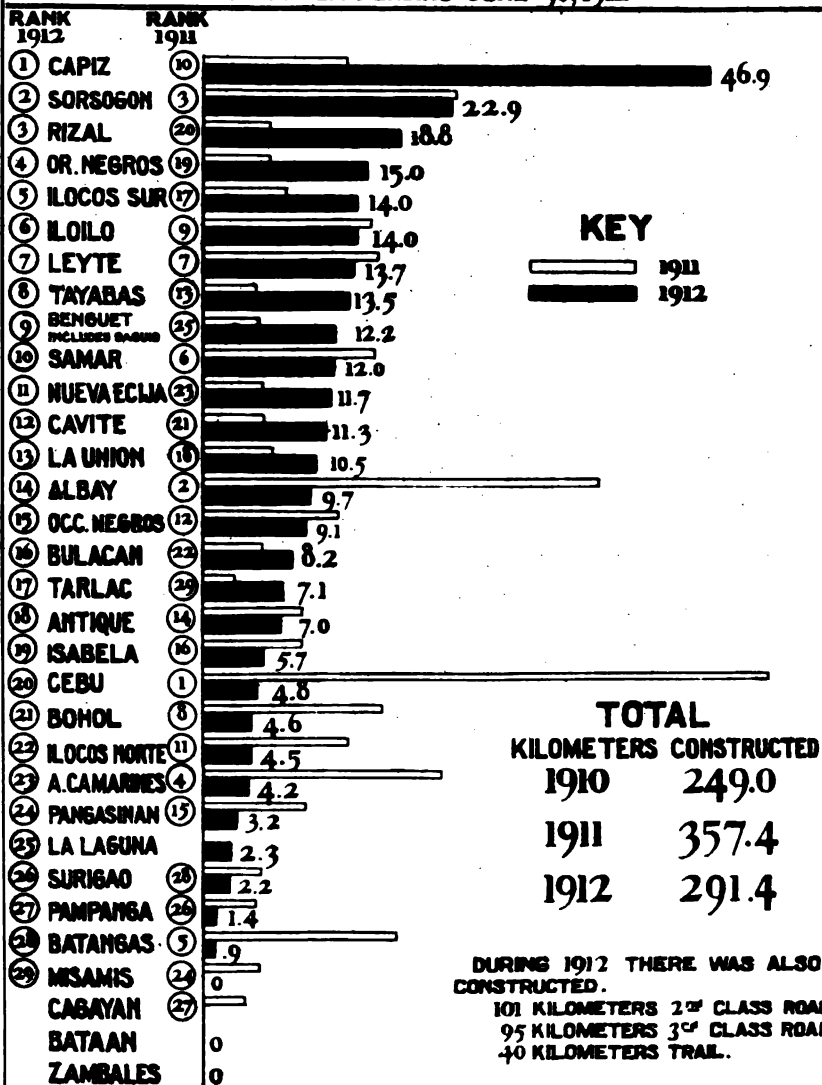
1912 P9,720,441.

1911 P9.793.119.

**SUPERVISED**

INCREASE IN SUPPLIES CARRIED FORWARD TO 1913, BUREAU % P 89.861. 40

# RANK OF PROVINCES KILOMETERS OF FIRST CLASS ROAD CONSTRUCTED FISCAL YEAR ENDING JUNE 30, 1912

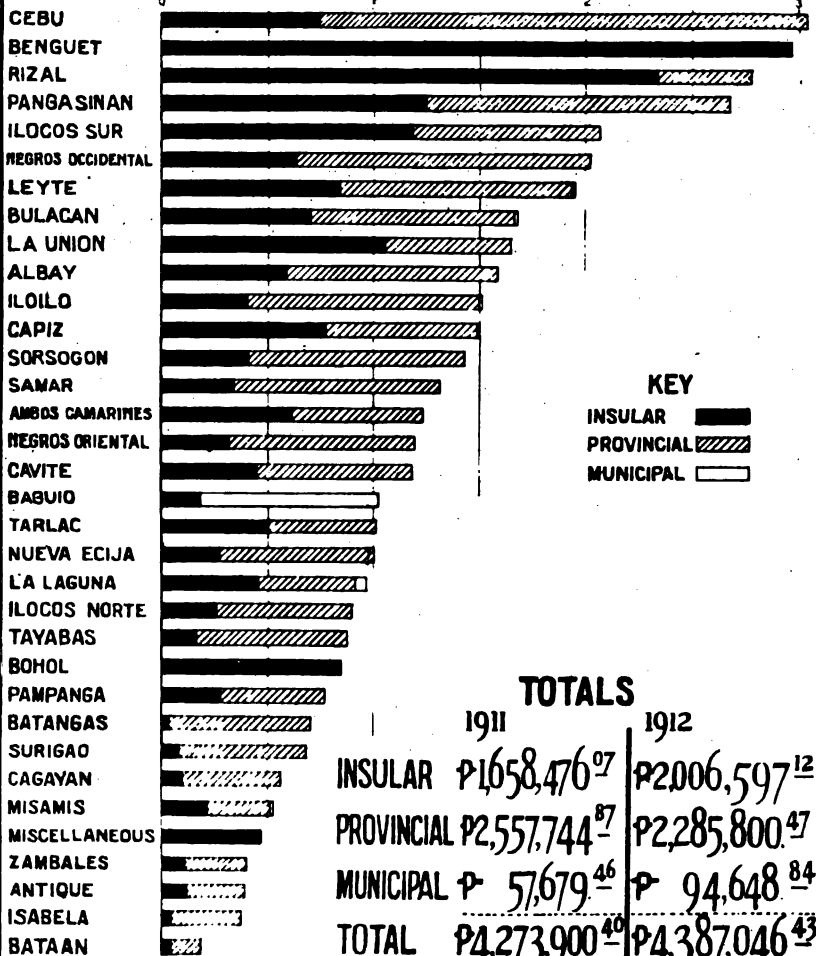


# ROAD AND BRIDGE EXPENDITURES

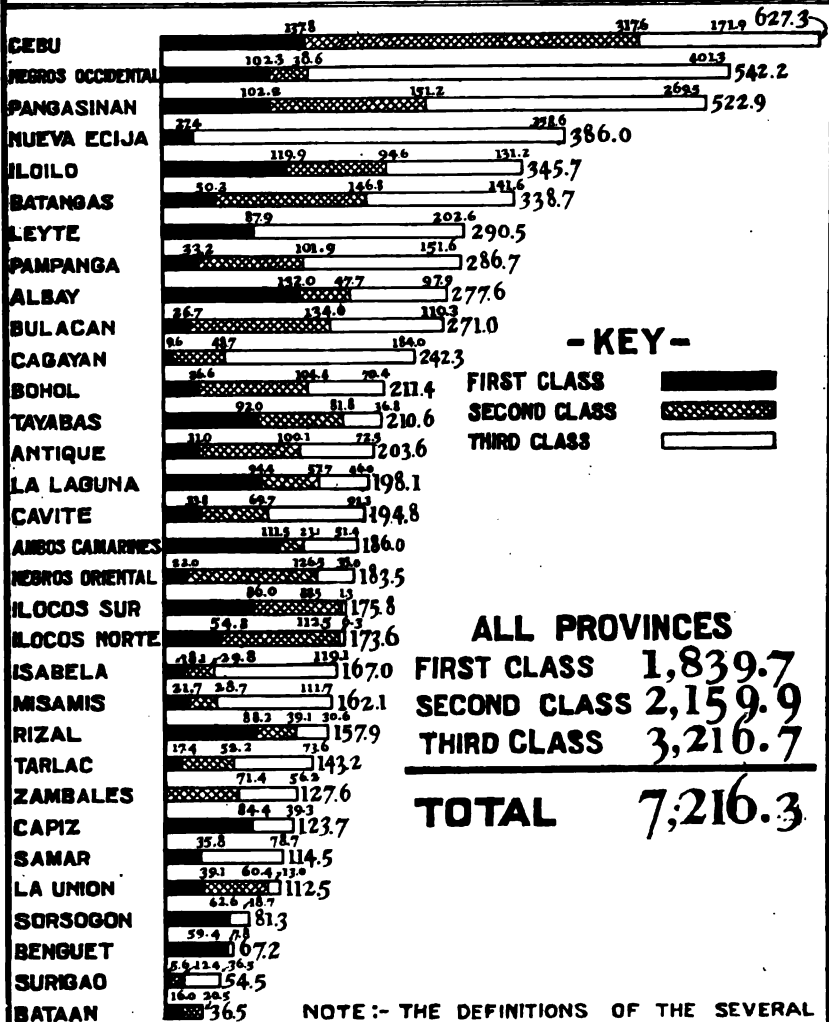
TOTALS BY PROVINCES

FISCAL YEAR ENDING JUNE 30, 1912

PESOS-HUNDREDS OF THOUSANDS



# TOTAL KILOMETERS ROAD ALL CLASSES IN EXISTENCE JUNE 30, 1912.



NOTE:- THE DEFINITIONS OF THE SEVERAL CLASSES WERE REVISED DURING THE YEAR.

headquarters are promptly and correctly carried out, and promote system and discipline in the organization. Through their close connection with and frequent presence at the general office of the bureau, more uniform standards of construction are being enforced in the field.

*Roads and bridges.*—Allotments of funds appropriated for the construction, improvement, and maintenance of roads and bridges to a total amount of ₱916,700, were made by the undersigned between July 1, 1911, and June 30, 1912, for 37 separate projects, and an additional ₱1,300,000 was distributed among the provinces on the basis of population, to be expended on road and bridge work in the discretion of provincial boards.

For about five years it has been the policy of the bureau to construct its bridges generally of permanent materials only. Concrete structures are the best adapted to the needs of the country, and are installed as far as possible. Three hundred and fifty-eight bridges and culverts, aggregating 1,700.06 meters span, costing ₱1,040,000, were constructed during the year.

Steady progress has been made in the construction of durable roads. Most of these are of the macadam type, surfaced with broken stone, gravel, or coral rock, as local conditions of traffic, cost, and availability may determine. Experiments have been made on some of the important roads near Manila with oil and bituminous binders, and our experience so far has shown them to be very satisfactory.

The total amount of money expended for the construction, maintenance, and improvement of roads and bridges during the 12 months was ₱4,387,046.43, of which ₱2,006,597.12 were insular government funds, ₱2,285,800.47 provincial government funds, and ₱94,648.84 municipal government funds. These amounts do not include the administration expenses of the provincial division, the division of engineering design, or the Baguio division.

There are now about 2,000 kilometers of hard-surfaced road in the islands, excluding those in the city of Manila and in the Moro Province. The total amount of road constructed during the year was: First-class, 291.4 kilometers; second-class, 101 kilometers; third-class, 95 kilometers; and trail, 40 kilometers. The actual length of roads in the islands officially designated as first class and turned over for maintenance to the provincial boards of the provinces in which they lie is 1,780.3 kilometers. Only 1 province out of the 31 in which public works are administered by the bureau has no first-class road whatever.

Satisfactory progress has been made on the Manila-North Road, which will eventually be a through highway about 560 kilometers in length from Manila to the town plaza of Bangui, Ilocos Norte, almost the extreme northern end of Luzon. The location of the entire road has been definitely determined, and construction is proceeding by sections as the funds become available and the separate local projects, each of which is a link in the final chain, are justified. A considerable portion of the layout is now completed as first-class road, and several new sections will be added during the coming dry season. Its route is through the Provinces of Rizal, Bulacan, Nueva Ecija, Pangasinan, Union, Ilocos Sur, and Ilocos Norte. The plan is to build it as a first-class road from Manila to Laoag, and as a second-class road from Laoag to Bangui.

The Manila-South Road, another through highway, from the capital to the southern extremity of the island of Luzon, is a second important trunk line for which we are working. This road will probably be about 480 kilometers, or 300 miles, long. From Manila to Gumaca, Tayabas, a length of 204 kilometers (129 miles), there is now a road open to wheeled traffic. Some sections of it, however, are poor and will have to be reconstructed. From Gumaca to Nueva Caceres, Ambos Camarines, the country is very mountainous and the construction of a highway over this section will probably not be undertaken for some time to come. From Nueva Caceres to Legaspi, Albay, there is a good road 104 kilometers (64.5 miles) in length. Investigations are now under way in regard to the feasibility of an interprovincial road between Sorsogon and Albay to continue the scheme.

Four thousand one hundred and twenty-four kilometers of first and second class road in 31 provinces were maintained in good condition at a total cost of ₱1,161,678.95.

*Overdrafts.*—In previous years there have been many instances in which works of construction and repair under the supervision of engineers of the bureau have cost more than the amount of money available, causing much embarrassment and adverse criticism. We have, however, to report that energetic steps have been taken to correct that condition and that since the close of January, 1912, in all the 31 provinces in which public works are carried on under the administration of the bureau's engineers, not one overdraft has been incurred on any project authorized since that date. This statement covers a field of approximately 800 active projects continuously. Not only has this record been made, but of the 24 overdrafts which existed on January 31, 1912, all of which were incurred before the inauguration of new methods, 14 have by the persistent efforts of district engineers been cleared off the books, and the others will soon be disposed of. Aside from conditions over which engineers have no control, there appears now to be no opportunity for carrying projects to a cost in excess of the money available, except through gross carelessness or inefficiency.

#### IRRIGATION DIVISION.

This division, until it undertook the construction of a large irrigation system in the vicinity of San Miguel, Tarlac, in 1910, had confined most of its operations to the securing of data with reference to irrigable areas, flow of streams, the investigating of apparently feasible projects, river control, and some minor works of construction, repair, and maintenance. A considerable amount of money had been expended with not much to show for it which was tangible to the public, and as some criticism was being made, the division about the first of the fiscal year under review bade fair to reestablish itself in public confidence through the satisfactory completion of the San Miguel project, which was to irrigate 4,000 hectares of land, and was 90 per cent completed on June 30, 1911. The estimate for the construction of this system, based on the original designs, was ₱300,000, which would probably have been overrun about 50 per cent.

Unfortunately, in July, 1911, the vicinity of the San Miguel irrigation project was visited by an extraordinary flood, the dam was carried out, and the irrigation division was given a reputation for ineffi-

# UNSKILLED LABOR

DAILY RATES OF PAY

FISCAL YEAR ENDING JUNE 30, 1912

MANILA	P. 80
ILOILO	P. 80
LA LAGUNA	P. 80
RIZAL	P. 80
TAYABAS	P. 80
ISABELA	P. 77
SURIGAO	P. 75
BENGUET	P. 70
SORSOGON	P. 70
CAGAYAN	P. 68
CAVITE	P. 65
MISAMIS	P. 65
SAMAR	P. 60
ALBAY	P. 60
A. CAMARINES	P. 60
BATANGAS	P. 60
LEYTE	P. 60
NUEVA ECIJA	P. 60
OSMEÑA W.W.	P. 60
BULACAN	P. 55
OCC. NEGROS	P. 55
BATAAN	P. 50
BOHOL	P. 50
CAPIZ	P. 50
CEBU	P. 50
LA UNION	P. 50
OR. NEGROS	P. 50
PAMPANGA	P. 50
PANGASINAN	P. 50
TARLAC	P. 50
ZAMBALES	P. 50
ANTIQUE	P. 40
ILOCOS NORTE	P. 30
ILOCOS SUR	P. 30
MEAN 1912	P. 579
MEAN 1911	P. 561

NOTE  
MANILA INCLUDES  
LABOR USED BY THE DIVISION  
OF BUILDING MAINTENANCE  
ALTERATION AND REPAIR AND  
THE CONSULTING ARCHITECT  
BENGUET INCLUDES LABOR



# BULL CARTS

AVERAGE DAILY RATES OF PAY  
FISCAL YEAR ENDING JUNE 30, 1912

RIZAL	P3.00
TAYABAS	P3.00
MISCELLANEOUS	P3.00
SAMAR	P2.95
LEYTE	P2.75
ANTIQUÉ	P2.50
BATANGAS	P2.50
BENGUET	P2.50
CAPIZ	P2.50
CAVITE	P2.50
N.ECJA	P2.50
CAGAYAN	P2.20
CEBU	P2.10
MISAMIS	P2.10
ALBAY	P2.00
A.CAMARINES	P2.00
ILOILO	P2.00
LA LAGUNA	P2.00
DR. NEGROS	P2.00
TARLAC	P2.00
ISABELA	P1.85
PAMPANGA	P1.85
OCC. NEGROS	P1.80
SURIGAO	P1.75
SORSOGON	P1.60
BULACAN	P1.55
BOHOL	P1.50
LA UNION	P1.50
PANGASINAN	P1.50
ZAMBALES	P1.50
BATAAN	P1.00
ILOCOS NORTE	P1.00
ILOCOS SUR	P.90
MEAN 1912	P1.800
MEAN 1911	P2.036

NOTE:- MISCELLANEOUS  
INCLUDES MANILA AND  
OSMEÑA WATER WORKS.

ciency which it will take much successful work to blot out. A searching investigation into this failure was made immediately by bureau officials, and it was found that the dam had been poorly located, inadequately designed, and would not have withstood an ordinary flood. The need for radical changes in the irrigation division seemed apparent and they were made, we hope for the better. At the present time there is not in the service of the bureau a single engineer who was directly responsible for either the design or estimate for this system.

Since the reorganization the work appears to be going on satisfactorily. A new dam of the Barrage type has been designed for the San Miguel system, and is under construction by contract. The new estimate of the final cost of the project, the irrigable area of which has been increased, including the cost of the structure which failed, is ₡1,084,560, which will bring the cost of the system to ₡271 per hectare, as compared with an average cost of ₡250 per hectare in the United States. The actual money loss involved in the destruction of the first dam, including some damages to the canal system which occurred at the same time, is estimated to have been ₡76,360. The main canals in the distribution system were not seriously damaged by the storm, and by means of temporary headworks have been in use to date. The completion of the entire contract is expected not later than August, 1913.

The total amount expended by this division during the year was ₡578,783.93, distributed as follows:

Cadastral surveys (7 projects).....	₡218, 965. 44
Preliminary location and surveys (32 projects).....	132, 145. 07
Construction (8 projects).....	69, 232. 66
Hydrographic (19 projects).....	56, 826. 01
River control (9 projects).....	25, 345. 99
Miscellaneous (13 projects).....	3, 300. 13
General office (2 projects).....	72, 968. 63
Total.....	578, 783. 93

Owing to the fact that a considerable unexpended balance of the continuing annual appropriation of ₡750,000 provided in Act No. 1854 was available from previous years for expenditure during the fiscal year 1912, the ₡750,000 which would by operation of the law have been credited to irrigation funds on July 1, 1911, was ordered held in the treasury, and no part of it was used during the year. It may be necessary, however, on account of the extensive construction work planned for the fiscal year 1913, to ask for the release of a portion of this amount.

A thorough irrigation law, the result of much labor on the part of the bureau of public works and a special irrigation committee, which has been a subject of discussion at two sessions of the Legislature, was finally passed on February 6, 1912. It provides in sufficient detail a system for the appropriation of public waters, and for the determination of existing rights thereto; for the public registration of all water rights; for the creation and use of water power; for investigations for and the construction, maintenance, and operation of irrigation systems by the government; for the repayment of money expended therefor; for the construction, maintenance, and operation of irrigation systems by private persons; for the inspection and regulation of all works pertaining to the use of water; and penalties for its violation. It is believed to be admirably suited to the needs of the country for many years to come.

## ARTESIAN WELL DIVISION.

This division is one of the most popular in the bureau, as the beneficial results of its operations are immediately and directly apparent to the people. Its relations with provincial and municipal officials have been harmonious, and its only handicap is the comparatively small amount of money that can be provided for it annually. Few wells have been unsuccessful and the work has been economically performed. On June 30, 1912, there were 686 successful artesian wells in the islands. Expenditures during the 12 months totaled ₱446,309.05, distributed as follows:

Administration expenses.....	₱31,722.06
Increase in equipment.....	55,856.49
Maintenance of equipment.....	33,722.83
Expended on the work:	
Insular funds.....	244,994.16
Provincial funds.....	5,389.01
Municipal funds.....	6,219.44
Total.....	377,903.99

There were unexpended at the end of the year ₱88,922.36 insular funds.

The division, on June 30, 1912, operated either directly or by general supervision 25 deep well steam rigs, 14 additional of this class of equipment having been acquired during the year, and 42 jet rigs, a decrease of one by sale during the year. The steam rigs sunk 43 deep wells at an average cost of ₱21.09 a meter (₱6.43 a foot), including depreciation on equipment and interest.

## BAGUIO DIVISION.

*City of Baguio.*—The bureau of public works has charge of the construction and maintenance of insular public works and the custody of insular government buildings in Baguio, the assignment of offices and quarters to government officials and employees during the season, the supervision of the employees' mess, and the equipment and rental of about 53 government-owned cottages.

The season of 1912, which commenced about the middle of February and closed about June 1, was the most successful Baguio has ever had. All accommodations, public and private, were taxed to their utmost, and there is a growing feeling of the permanency of the place. Many private residences have been erected during the year and others are contracted for. The advent of the railway, with its more certain means of transportation at lower rates than those at present imposed by the railway and Benguet automobile line combined, will enable many more people to take advantage of this delightful spot during the heated term of the year, and will stimulate building construction.

Very little additional building construction has been undertaken by the Government, although some improvements in quarters were made at Teachers' Camp and on the constabulary reservation. An addition to the Hotel Pines, which is a government building leased for a term of years, was completed in the early part of the season at a cost of ₱16,000, half of which was borne by the lessee.

*Benguet Road.*—In July, 1911, the terrific storm which swept over the island of Luzon seemed to reach its height in the vicinity of Baguio and the Benguet Road. In one day 38.8 inches of water fell, and

# SUCCESSFUL ARTESIAN WELLS

TOTAL DEPTH TO JUNE 30, 1912.

METERS

BULACAN	10394.4
RIZAL	5541.9
PAMPANGA	4894.5
TARLAC	3612.2
NUEVA ECIJA	2100.4
BATAAN	2028.4
CAVITE	1965.7
A. CAMARINES	1884.6
BATANGAS	1702.0
PANGASINAN	1211.9
CEBU	1206.0
TAYABAS	1205.2
LA LAGUNA	931.4
BOHOL	927.4
OCC. NEGROS	812.1
ILOILO	746.0
MANILA	362.1
CAPIZ	306.2
SAMAR	242.0
LEYTE	240.1
ALBAY	229.3
CAGAYAN	221.9
SORSOGON	197.6
MISAMIS	187.5
N. VIZCAYA	158.2
AGUSAN	153.3
ZAMBALES	140.2
MOUNTAIN	159.7

## ALL PROVINCES

NUMBER	TOTAL DEPTH		AVERAGE DEPTH	
	1911	1912	1911	1912
DEEP WELLS	68	111	2230.0 M	15692.8 M
JET WELLS	470	575	22677.5 M	28019.4 M
ALL WELLS	538	686	31907.5 M	43712.2 M



during the four worst days the rainfall totaled 66.45 inches. This unprecedented precipitation on the bare sides of the canyon of the Bued River, into the walls of which the Benguet Road for a considerable portion of its length is cut, resulted in great damage to the lower half of the highway from kilometer 17 to Camp One. Two enormous slides, the contents of which were estimated at over 1,500,000 cubic meters, occurred at kilometer 13, forming a natural dam 150 feet high, and impounding the torrent to that height. During the few hours of the existence of this dam gravel was deposited for a distance of several kilometers above it to a height of 40 and 50 feet above the former river bed. Its bursting released a tremendous flood which carried everything before it, inflicting great damage to the road and its structures, and carrying out the suspension bridge built by the Manila Railroad Co. at Camp One.

The advisability of reconstructing the road was seriously questioned, but it was evident that adequate communication must be established with the summer capital and the mining district tributary thereto during the two or three years the railroad from Aringay to Baguio will be under construction. The temporary replacement of the old road was made much more feasible in September, when another heavy rainfall of 31 inches in 24 hours cut through the vast deposit of gravel and boulders which obliterated the old location, and swept a large part of it away.

The work of reopening the road was started in October and vigorously carried on until December 22, 1911, when automobile trucks were again able to travel its entire length. This work cost about ₱100,000, and while in many places it was far from permanent, it served the purpose, and the highway was not out of commission during a single day of the 1912 season.

On Friday, May 31, 1912, a suspension bridge of 360 feet span which was under construction to replace the temporary structure spanning the canyon of the Bued River at kilometer 13.1, fell and precipitated 21 workmen (15 Japanese and 6 Filipinos) onto the rocks of the gorge below. Eleven men were killed and the other 10 more or less seriously injured. Of those killed 7 were Japanese and 4 Filipinos, and of the injured 8 were Japanese and 2 Filipinos. Immediate steps were taken for the relief of the injured and of the families of those killed.

Searching examinations have been made into the cause of this accident, which had not been satisfactorily determined at the close of the year. At the time it occurred two 2-inch 7-strand steel wire cables with steel centers, on which the bridge was being suspended, were in place and the 21 men were engaged in laying the floor system. The cables had received about half of the total dead weight of the completed structure when one end of one of the cables slipped through the clamps holding it, throwing the entire weight of the structure on the remaining cable, which in turn slipped about 20 feet on the opposite end of the bridge, where it was caught by its clamps and supported the wreckage of the structure. The floor stringers had not yet been nailed to the beams and together with the men working on them slid off into the river bed. The failure occurred suddenly, and without any warning whatever.

It is the opinion of the engineers, both in and out of the bureau, who have carefully investigated the matter, that the cause of the

accident can be attributed to the clamps used, which it is thought were unsuitable for the cable, due to no fault on the part of the bureau of public works. No essential faults of erection were developed, but, as stated, the final determination of the question had not yet been reached at the end of the period covered by this report.

The actual cost of all work on the Benguet Road during the fiscal year 1912, including the cost of repairing the damages above mentioned, was ₱253,000. This does not compare unfavorably with the cost of maintenance for previous years, the lowest of which was 1908, when it cost ₱164,363, and the highest 1910, when it cost ₱358,685. All of these figures include an 8 per cent surcharge paid to the bureau itself to cover general administrative expenses. The average annual cost of maintenance during the past five or six years has been ₱240,000, which includes the 8 per cent surcharge mentioned above.

*Benguet Automobile Line.*—The auto line from July 1, 1911, to June 30, 1912, carried more than 19,000 passengers without injury or accident to any of them. A block system something similar to that established on railways is carefully maintained, the automobiles being run in trains and a regular speed schedule adhered to. Freight was carried to the amount of 5,161 tons of 2,000 pounds each. In addition to its other automobile equipment, the line operates 17 motor trucks, all constructed especially for service on the Benguet Road. They have given splendid service as passenger carriers, but are inadequate in capacity for freight, owing to the fact that at the time they were ordered the weight limit of the bridges on the road was two tons less than it is at present. The purchase of heavier motor trucks for freight service is therefore contemplated. Total receipts of the line were ₱221,000, and total expenses ₱219,000. The latter figure includes a contribution of 8 per cent to the bureau itself to pay for the general administrative expenses of the main organization.

#### MANILA GENERAL OFFICE.

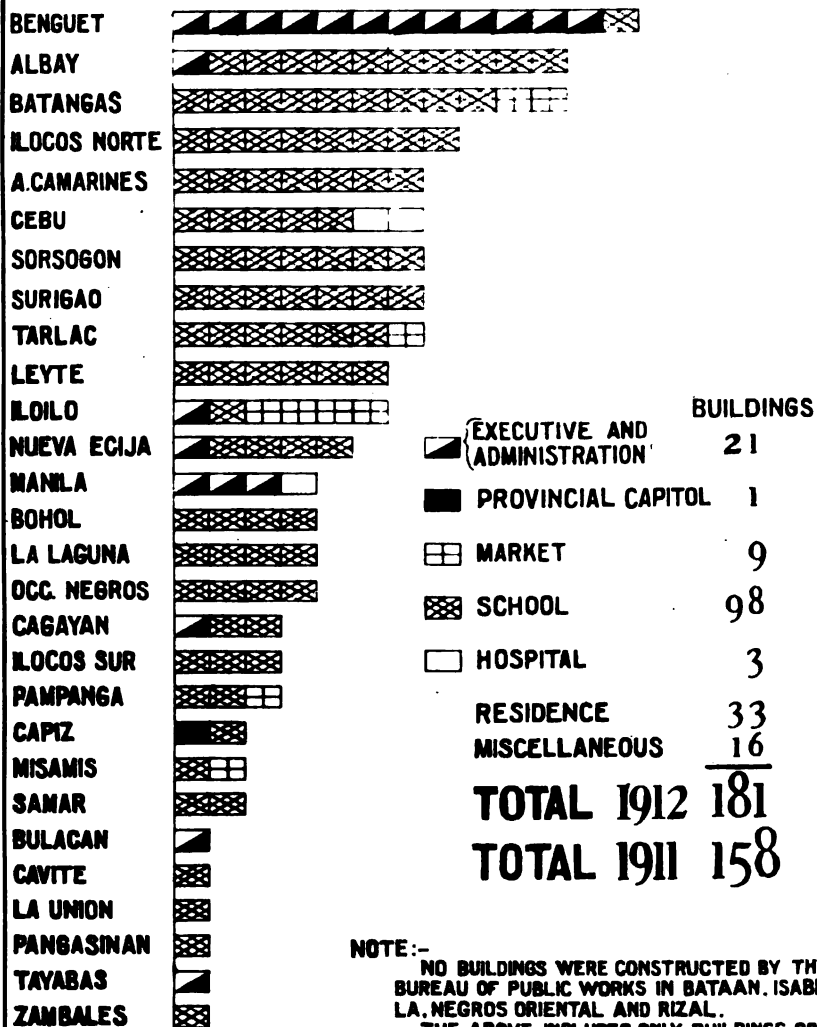
*Division of engineering design.*—This division has general charge of the designing work of the bureau, with the exception of architectural designing, which is under the consulting architect, and irrigation designing, which is under the chief irrigation engineer. The structural and engineering features of building designing were taken over by it only on June 8, 1912, when an arrangement which had existed since February, 1910, whereby the consulting architect assumed the entire responsibility for the engineering details of building work, which had proved unsatisfactory, was terminated.

Sixty-six road structures, aggregating 2,378 meters span, not included in any of the bureau's standard plans, were designed at an approximate cost, including plans, specifications, estimates, and blue prints, of ₱2.59 per ₱100 of construction cost. The bridges and culverts completed during the year according to the plans drawn by this division aggregated 1,700.06 meters span, and cost about ₱1,040,000. The total expense of the division for the year was ₱54,150.31.

*Division of building maintenance, alteration, and repair.*—This division, which at one time was one of the most troublesome in the bureau, owing to the fact that in a large percentage of its projects the cost overran the estimates and thus caused much annoying

# BUILDINGS COMPLETED

FISCAL YEAR ENDING JUNE 30, 1912.



## NOTE:-

NO BUILDINGS WERE CONSTRUCTED BY THE BUREAU OF PUBLIC WORKS IN BATAAN, ISABELA, NEGROS ORIENTAL AND RIZAL.

THE ABOVE INCLUDES ONLY BUILDINGS COMPLETED DURING THE YEAR.



# BUILDING WORK EXPENDITURES

BY PROVINCES

FISCAL YEAR ENDING JUNE 30 1912.

PESOS - HUNDREDS OF THOUSANDS

MANILA  
ILOILO  
BENGUET  
CEBU  
NUEVA ECIJA  
ALBAY  
CAPIZ  
SOROGON  
BATANGAS  
AMBOS CAMARINES  
TARLAC  
ILOCOS SUR  
CAGAYAN  
LEYTE  
BULACAN  
SAMAR  
NEBROS OCCIDENTAL  
PANGASINAN  
LA LAGUNA  
SURIGAO  
ILOCOS NORTE  
MISAMIS  
ZAMBALES  
PAMPANGA  
TAYABAS  
BOHOL  
LA UNION  
NEBROS ORIENTAL  
ISABELA  
CAVITE  
BATAAN  
ANTIQU  
RIZAL

## KEY

INSULAR   
PROVINCIAL   
MUNICIPAL 

## TOTALS

	1911	1912
INSULAR	P 2,196,452. <sup>07</sup>	P 1,941,685. <sup>62</sup>
PROVINCIAL	P 190,021. <sup>03</sup>	P 194,603. <sup>78</sup>
MUNICIPAL	P 388,886. <sup>83</sup>	P 404,348. <sup>79</sup>
TOTAL	P 2,775,359. <sup>93</sup>	P 2,540,638. <sup>19</sup>

BENGUET INCLUDES BAGUIO.

# BUREAU CASH ACCOUNT

FISCAL YEAR ENDING JUNE 30, 1912.

	CREDIT	DEBIT	
APPROPRIATED SURPLUS OR BALANCE JUNE 30, 1911 P493 259 <sup>41</sup>			CAPITAL EXPENDITURE OR PERMANENT IMPROVEMENTS AND EQUIPMENT P310 547 <sup>16</sup> ††
NET APPROPRIATION AND TRANSFER P197 803 <sup>10</sup>			EXPENSE OF MAINTENANCE OF PERMANENT IMPROVEMENTS AND EQUIPMENT P146 591 <sup>86</sup>
NET INCOME OR RECEIPTS LESS SUPPLIES DROPPED LESS EXPENSE OF OPERATION P794 113 <sup>08</sup>			EXPENSE OF ADMINISTRATION P886 094 <sup>51</sup>
			APPROPRIATED SURPLUS OR BALANCE JUNE 30, 1912 P141 942 <sup>06</sup>
			BUREAU FUNDS EXPENDED P1343 233 <sup>53</sup>

†† ADDITIONAL PERMANENT IMPROVEMENTS AND  
EQUIPMENT VALUED AT P258 602<sup>27</sup> WERE AC-  
QUIRED BY TRANSFERS WHICH DID NOT INVOLVE  
THE BUREAU CASH ACCOUNT.



TOTAL P 959,148.<sup>60</sup>



TOTAL P 1,356,677.<sup>20</sup>



TOTAL P 1,574,509.<sup>28</sup>

# THE BUREAU WORTH

JUNE 30  
1910 - 1911 - 1912

-KEY-  
CASH ACCOUNT BALANCE ..   
PERMANENT IMPROVEMENTS •   
EQUIPMENT.....

• INCLUDES P 896.<sup>08</sup> REAL ESTATE

correspondence with the bureaus for which the work was executed, was reorganized shortly before the beginning of the fiscal year 1912. Since the change former conditions have almost entirely disappeared, and work is being done economically, within the funds available, and generally to the satisfaction of those for whom it is done. Expenditures from insular funds for maintenance, alteration and repair of public buildings during the fiscal year, aggregated ₱162,-289.54. The cost of the division was ₱34,415.17.

*Division of building construction.*—This is a new division, organized only in June, 1912, as a result of the taking over from the consulting architect of the actual construction of buildings architecturally designed by his office. The construction of all buildings erected by the insular government in Manila will be carried on by it.

*Statistical division.*—The statistical division has proved a valuable adjunct to the bureau through its compilation and analyzation of the enormous mass of information received in the central office from the various fields of activity and in placing the essential portions of this information in concise and graphic form before the chiefs of the bureau for their guidance. The charts which are printed as a part of this report represent but a small percentage of those prepared in the statistical division, but will serve to indicate the class of work performed by it. Material and cost charts are drawn for the information of the men within the bureau, who carry the different classes of expenditure into minute detail.

*Accounting division.*—We do not feel that full efficiency is yet being obtained from this important division of the bureau, although conditions are greatly improved. Adequate provision was not made in this and the property division for the great expansion which took place in the work of the bureau in 1908 through the sudden making available of large appropriations for public works, and the confusion which commenced then has not been entirely cleared up. On November 18, 1908, the director of public works requested that the insular auditor step in and straighten matters out, and by executive direction from that date until December 1910, the accounting division was in direct charge of the auditor, with but little improvement. Since the beginning of 1911 the bureau has been doing its best to straighten out its own accounting affairs, and this division is unquestionably conducting its work in a more businesslike manner than ever before, although it is believed the system followed is not the one best suited to the needs of the bureau. During the fiscal year 1912 the insular auditor has rendered much assistance to the bureau in reference to its accounting difficulties, and the installation of a new system is only possible through the medium of his office, as the men in direct charge of the accounting division of the bureau are too closely pressed by current work to be able to devote time and study to such a matter.

A noticeable improvement is the time within which bureau bills are rendered. Formerly bills for completed work were not submitted until months after the services had been performed, but at present in almost all cases they can be prepared and presented within 30 days.

The substitution of fixed surcharges for the old proration of general expenses mentioned in our last annual report has simplified the work of the accounting division and contributed to the more prompt rendition of vouchers.

The total expenditure supervised by the bureau during the fiscal year 1912 was ₱9,720,441.83, as compared with ₱9,793,119.59 during the previous year.

*Property division.*—The work of this division has been in a worse condition than that of the accounting division for some years, owing to unsystematic methods in the handling of property and in keeping the accounts thereof, and inefficient employees. The insular auditor was called upon in 1908 to correct this condition at the same time that he took over the accounting division, but up to the beginning of the fiscal year 1911 the status of the property of the bureau had not yet been determined. The bureau itself undertook during the greater part of the fiscal year 1911 to improve conditions by its own efforts, expended a large amount of money in the employment of additional force, and in May, 1911, submitted an inventory to the auditor's office which showed an apparent shortage of ₱157,000. In November, 1911, the insular auditor undertook to make an exhaustive examination into the property affairs of the bureau, at the same time installing a proper system on a substantial and correct basis. Gradually since that time order has been evolved out of chaos, and innumerable faults of administration and of system have been promptly rectified. The shortage noted above, which had been due to confusion in the records, loss of issue slips, natural shrinkage and wastage, preventable waste, unsystematic methods, and probably to some pilfering, and which had extended over a period of years, was reduced through a physical check of property and careful investigation of old transactions to about ₱85,000, and is still being reduced by the location of old errors as the work progresses. The investigation was still in progress at the close of the year, but the property affairs of the bureau are in a much more satisfactory condition than they have been for some time, and a satisfactory basis of operation has been established under the efficient direction of the auditor.

*Library.*—The accumulation of maps, plans, specifications, technical books, and catalogues in the bureau has become so great that a carefully systematized method of filing is necessary and is in operation under the direction of a competent librarian of considerable experience in the United States. All of the various articles finding their way to this division are carefully indexed and classified, and the 30,000 maps, plans, and specifications belonging to the bureau are accessible at a moment's notice to anyone desiring to use them.

*Record division.*—This division handled 85,000 communications during the fiscal year 1912, as compared with 60,000 during 1911.

*Automobile division.*—To carry out the provisions of Act No. 2159, passed by the Legislature on February 6, 1912, this new division has been recently created at Manila. The act provides in considerable detail for the regulation of motor vehicle traffic in the Philippine Islands, and for the registration of motor vehicles and the examination and licensing of drivers by the bureau of public works.

#### SPECIAL PROJECTS.

*Osmena waterworks.*—One of the most important of the special projects executed during the year was the water-supply system for the city of Cebu, which has been named in honor of the speaker of the Philippine Assembly. Construction was commenced on February 17,

1911, and finished February 19, 1912, for less than the estimated cost. The time set for completion had been 12 months and the amount appropriated for the project ₱555,000. It actually cost ₱526,000.

Its storage reservoir has a capacity of 333,000,000 gallons and its distributing reservoir a capacity of 4,000,000 gallons. The main pipe system is 5½ kilometers long, and the total length of pipe in the distributing system within the city is 21 kilometers.

*Calumpit Bridge.*—The first of a type of highway bridges which will probably be found economical on some of the larger rivers of the islands spanned by lines of railroad has been under construction at Calumpit, Bulacan. It is a combination railroad and highway bridge erected under contract by the Manila Railroad Co., the cost of the highway feature being borne by the Government. The Rio Grande de Pampanga is one of the large rivers of Luzon, and the cost of an ordinary highway bridge of permanent materials to span it would have been prohibitive for a number of years to come. The foundations of the combination structure were built to carry a double line of track and support the highway portions on steel brackets on either side of the railroad portion. A satisfactory permanent highway and another connection for the Manila-North road is thus secured over a river 350 feet wide at the bridge site for about ₱100,000, the amount allotted from road and bridge funds by the undersigned for the cost of the roadway part of the bridge and the approaches thereto on both sides having been ₱110,000.

#### General results.

	Fiscal year 1911.	Fiscal year 1912.
Concrete placed.....cubic meters.....	39,551	41,187
Cement used.....barrels.....	73,117	71,020
Reinforcing and structural steel used.....kilos.....	1,986,000	2,571,000
Piling used.....linear meters.....	59,400	33,200
Dressed lumber used.....M feet b. m.....	4,100	7,200
Average number of laborers employed per day.....	16,566	18,967
Average number of bull carts employed per day.....	481	580
Average number of teams employed per day.....	110	90
Number of buildings constructed.....	158	181
Cubical contents of buildings constructed.....	206,368	255,640
Total amount expended on building work.....	₱2,928,361.32	₱2,657,601.33
Number of successful artesian wells in the islands.....	638	666
Total expenditure for artesian wells.....	₱337,347.67	₱377,903.99
Total expenditure on roads and bridges.....	₱4,551,733.03	₱4,546,708.14

### BUREAU OF NAVIGATION.

#### PERSONNEL.

Mr. J. S. Reis, who had been with the bureau as assistant director since June 15, 1909, and who had also during this time performed the duties of marine superintendent and superintendent of inter-island transportation, resigned on February 29, 1912, to accept an important position outside the Government service. The vacancy thus created has not yet been filled.

Capt. P. W. Huntington, Medical Corps, United States Army, was relieved as medical inspector for the bureau of navigation by the detail of Capt. R. L. Carswell, Medical Corps, United States Army, on January 15, 1912.

On June 30, 1912, there were 1,449 officers and employees in the service, a reduction of 619 during the year. For various reasons the total force has been cut in the course of the last two fiscal years from 2,619 to its present figure.

Of the number employed on June 30, 1912, 117 were Americans, 1,284 Filipinos, 35 Chinese, and 3 of other nationalities.

#### DIVISION OF COAST GUARD AND TRANSPORTATION.

*Operation of fleet.*—At the beginning of the fiscal year, as stated in our last annual report, this division controlled the operations of a fleet of 41 vessels. It soon became apparent that at the rate of expenditure during the first three months of the year the bureau would use all of its appropriation (exactly the same amount having been provided as for the previous three years) long before June 30, 1912, and find itself unable to continue operations. To avoid this contingency, six coast guard cutters and two seagoing launches were, on October 25, 1911, ordered to be placed out of commission on November 1, 1911, thus materially reducing the cost of operation and maintenance for the remainder of the year. At the same time, as the probability of securing a larger appropriation for the bureau seemed remote, and we could not afford to allow these vessels to deteriorate on our hands, the information was passed out that any one or all of them were for sale. One of the cutters was sold to the Government of British North Borneo and sailed for Sandakan in May, 1912. In addition, two seagoing launches, a harbor launch, a ketch, and two sailing sloops were disposed of.

Additions to the fleet consisted of a combination dredge, pile driver and snag boat, and two harbor launches. The snag boat was entirely constructed at the bureau shops and sailed for Aparri under her own steam in April, 1912. Her operations will be confined to the Cagayan River in northern Luzon.

Two cutters were loaned to and operated by the bureau of coast and geodetic survey; one was chartered to and operated during the entire year by the United States Army, and another was under charter to the Army until March 8, 1912, when the charter was terminated and the vessel placed out of commission.

The cableship *Rizal* maintained the submarine cables of the government in the Archipelago in a better state of serviceability than has been the case for several years. She made two trips to Hongkong for docking and repairs, and during periods when the cables required no attention she has carried several cargoes of coal and lumber, thus reducing the cost of her operation to the government.

The total number of vessels in the division on June 30, 1912, was 37, being 4 less than at the same date of the previous year. These consisted of the cableship, 14 cutters, 4 seagoing launches, 2 auxiliary ketches, 15 harbor and river launches, and a combination stern-wheel dredge and snag boat, all valued at ₱2,223,407.36.

The number of vessels in operation on June 30, 1912, was but 28, consisting of the cableship, 7 cutters, 3 seagoing launches, 2 auxiliary ketches, 14 harbor and river launches, and the snag boat.

The gross cost of operation of the fleet was ₱1,003,873.01, from which the receipts for charters, transportation of passengers and freight, etc., ₱386,978.36, should be deducted, leaving a net charge against bureau funds of ₱616,894.65.

*Enlisted men.*—In the latter part of June the terms of enlistment of a number of seamen and other subordinate fleet employees expired, and only about 30 per cent of those discharged reenlisted. These are the first reenlistments under Act No. 1980, but it is hoped the percentage is not indicative of what we may expect in the future.

*Medical service.*—In the dispensary at bureau headquarters, Manila, 2,611 minor operations and dressings and 1,321 vaccinations were performed, and hundreds of examinations made and doses of medicines administered.

There were 2,677 days lost from duty on account of sickness and injury.

One officer was accidentally killed on board his vessel while cleaning the Gatling gun.

There were 6 cases of smallpox, 5 of varioloid, 2 of measles, and 17 of beriberi among enlisted men and light keepers.

Commercial contract vessels and the bureau fleet have been regularly inspected and a high standard of sanitation maintained.

*Offenses against the service.*—There were 105 trials by summary court, 53 of which resulted in fines aggregating ₱1,462.83, which has been credited to the pension fund, 1 reduction in grade, 9 imprisonment, 2 fine and reduction in grade, 21 fine and imprisonment, 1 imprisonment and dishonorable discharge, 5 fine, reduction in grade, and imprisonment, 2 fine and dishonorable discharge, 2 reduction in grade and imprisonment, and 9 acquittals.

Eight commissioned officers were punished by suspension without pay and fined for violation of regulations, and one officer was reduced in rank for misconduct.

#### MARINE RAILWAY AND REPAIR SHOP.

This division is, in accordance with the provisions of Act No. 1416, operated on a reimbursable basis. Its accounts are kept separate from those of the other divisions of the bureau and no appropriation of public funds is made for its support. It is authorized in the act above mentioned to perform services for insular bureaus, provincial and municipal governments, and other parties under certain restrictions, on the basis of cost plus a surcharge of 10 per cent.

During the year the plant was improved by the erection of a new concrete power house, in which were installed two new boilers of 200 horsepower each, a new condensing plant, and an air compressor, the latter of which distributes power for the operation of hammers, drills, yard derricks, lifting hoists, and the marine railway when docking small craft.

A new 100-ton marine railway was completed with the exception of the hoisting gear, not enough funds being available for the latter.

Work performed included the construction of a 30-foot high-speed motor boat, steel towers for light stations, manufacture of lighthouse apparatus, casting of propellers, anchors for buoys, engine and



dredge parts, etc. A 50-foot motor towboat is under construction for the bureau of prisons. With the approval of the undersigned, work has been executed for the United States Army, and in a few instances for parties not connected with the government service.

At the beginning of the year there was a balance to the credit of the marine railway and repair shop of.....	₱53,451.37
Receipts from operations were.....	764,029.57
<b>Making the total available.....</b>	<b>817,480.94</b>
Of this there were expended for new equipment and permanent shop improvements.....	₱111,065.87
In maintenance.....	47,161.09
And in operation.....	631,299.12
	<b>789,526.06</b>
<b>Leaving unexpended on June 30, 1912.....</b>	<b>27,954.86</b>

#### INTERISLAND TRANSPORTATION OFFICE.

On July 26, 1911, the contracts entered into with interisland steamship companies for the more satisfactory carrying of mail, passengers, and freight expired, and no appropriation having been made by the Legislature for payment of subsidies after that date, we faced the possibility of a return of the interisland shipping service to the conditions which existed prior to the execution of contracts making possible more effective government control.

A subsidy bill had been introduced at the previous session of the Legislature, but had failed of passage, and there was no assurance that better success would be had during the session of 1911-12. However, the steamship companies were approached on the subject, and as a temporary measure contracts were made between them and the undersigned in which they agreed to be bound by the terms of the old contracts, except as to penalization by money fines, until October 26, 1911, the undersigned agreeing to endeavor to secure passage of an appropriation to continue subsidy contracts for a term of years which would be retroactive in effect to cover the period from July 26, 1911. In October, the Legislature having still failed to act favorably on the bill presented, the arrangement was by mutual consent extended to March 26, 1912.

On February 1, 1912, an act was passed by the Legislature making a continuing annual appropriation of ₱200,000 for contract steamship service from July 26, 1911, to July 26, 1914.

Routes were immediately rearranged to conform with existing requirements and advertisements were placed for bids for the new service, as a result of which contracts have been entered into with five shipping companies for services over nine routes and providing for an annual subsidy of ₱123,544, which is more than ₱100,000 per annum less than the payments on the old basis.

Five bureau secondary routes were discontinued and the vessels laid up, as previously stated, owing to lack of funds for their operation, leaving but two secondary routes in operation at present.

#### DIVISION OF PORT WORKS AND LIGHTHOUSE CONSTRUCTION.

By Act No. 2059, passed on February 3, 1911, ₱500,000 was appropriated for the improvement of ports, dredging of navigable rivers and canals, and other similar specified purposes, allotable in

the discretion of the undersigned. From this appropriation allotments have been made during the fiscal year 1912 as follows:

For the improvement of the port of Manila by the construction of roadways and drains in the port district.....	₱87,892.54
For the completion of the river wall at Iloilo.....	60,000.00
For dredging in Manila Harbor.....	150,000.00
For building 2 small steel dumping scows.....	15,000.00
For repairs to Manila breakwaters.....	10,469.99
For completing harbor improvements at Bais, Oriental Negros.....	17,000.00
For building a small wharf at Larena, Siquijor Island.....	4,000.00
To complete construction of the Cagayan River snag boat.....	32,637.47
For dredging in Manila esteros.....	26,000.00
	<hr/> 403,000.00

*Manila dredging.*—Special attention has been given to the dredging of the old esteros of the city of Manila to make them navigable for small craft and to improve sanitation. Two hundred and sixty per cent more work of this nature has been done during the fiscal year 1912 than during the previous fiscal year, and we now have 5,300 lineal meters (3.3 miles) of esteros navigable at low tide by loaded cascos, and an additional 1,600 lineal meters navigable at mean tide, a total of 63 per cent of the 10,980 lineal meters which have been selected for improvement for navigation. The actual number of cubic meters of material removed was 128,118, representing an increase of 50 per cent over the amount dredged from Manila esteros in all the previous years of American occupation combined. Some of this material has been deposited on low lands in the vicinity of the work, but in most cases it must be towed out to sea and dumped because of our inability to prevail upon anyone to take delivery of it from the most convenient delivery points as a gift for filling purposes.

The channel of the lower Pasig River was maintained at a depth of 18 feet, there having been an increase of 21 per cent in the amount of material removed from this portion of the river and the outer bar.

In the outer harbor, due to the fact that the only dredge in the service which will reach to the depth required was held up for repairs nearly five months and was absent at Iloilo an additional two and one-half months, there was a decrease of 36 per cent in the amount of material moved.

On December 11, 1911, the undersigned allotted ₱150,000 for dredging to continue the deep-water area in the outer harbor southward, with a proviso that the material removed should be deposited behind the Cavite boulevard retaining wall. Bids were advertised for and a contract for the work signed and approved on May 3, 1912. Operations had not yet been started at the end of the fiscal year and probably will not be until after the typhoon season.

The work fell off 60 per cent in the upper reaches of the Pasig River because of the withdrawal of one dredge for estero work, and the extremely poor condition of repair of the one left there, no funds being available for the construction of a new steel hull to replace the present worn-out wooden structure.

Heavy repairs will be required on the dredges and other floating plant next year if they are to continue in service.

*Manila port district.*—It is provided by law that the streets on land reclaimed by the insular government shall be constructed by

the insular government, and maintained by the municipality in which they are located. In accordance with this law there has been allotted during the last two fiscal years from port works funds for the construction of streets, curbing, and storm-water drains in the port district, city of Manila, a total of ₱126,892.54, practically all of which has been expended. As a result, the street system in our new shipping district is beginning to take definite form. It is to date sufficient for the needs of the three large piers and the completed structures in the district, but at the rate the blocks are being leased it will soon be necessary to materially extend the system.

A force of men has been employed continually on repairs, alterations, and improvements at steel Piers 3 and 5, the maintenance cost of which is taken out of the receipts from their operation.

The division exercises a general supervision over the construction by private capital of a plant abutting on the inner basin, for general marine construction and repair work. This plant will include a marine railway capable of docking vessels of 3,000 tons displacement, two smaller railways for launches and smaller craft, machine shops, and a foundry. Construction was started in February, 1912. At the close of the fiscal year the large marine railway was approximately 50 per cent and the machine-shop buildings 25 per cent completed. No work had been done on the smaller railways. This plant will be able to handle any interisland boat and many of the foreign vessels calling at Manila, and if able to compete with Hong-kong yards for extensive repairs should be the means of keeping in the islands large sums of money now expended abroad.

*Cavite Boulevard.*—No additional funds were provided for work on the Cavite Boulevard, and the contractors have only worked intermittently on repairs to the wall. No extension in length was made. Of the total funds so far provided, there remained unexpended on June 30, 1912, ₱47 336.94, most of which it is estimated will be required to put the wall in good condition, including the crushed stone backing in preparation for the back fill, after the typhoon season.

*Manila breakwaters.*—The work on the south breakwater, which was reported under way in our last annual report, was completed in October, 1911, and the superstructure wall on the west breakwater has been brought up to grade. The breakwaters are now in very good condition throughout their entire length, and no extensive repairs should be necessary for several years. The severe typhoons of July 14 to 17, 1911, did practically no damage to them.

*Pasig River walls.*—The back filling behind the two new sections of wall constructed on the south bank of the river last year was completed in September, 1911, and repairs to the old Spanish wall have been made at various points in the lower river. They are now in fairly good condition and should require no extensive repairs for at least a year.

*Iloilo Harbor improvements.*—The extension of the reinforced concrete wharf on the south side of the Iloilo River was continued by administration throughout the 12 months. At the close of the year 346 linear meters of wharf had been completed and 51 meters partially constructed, the whole equivalent to about 365 linear meters of completed wharf, the cost to date approximating ₱515 per linear meter. It is estimated that the entire 638.5 meters of improvement contemplated, 241.5 meters of retaining wall and 397 meters of wharf, will cost less than ₱400,000. So much benefit has been derived

from and so much handling expense saved through the wall and wharf constructed that a petition to extend the work to the upper reaches of the river, signed by practically all the shippers in that district, has been received. If funds become available, such an extension would be of great value.

Dredge No. 1 was dispatched from Manila to clear out the bed of the lower river, which had silted up considerably. Owing to the urgent need of this dredge at Manila, time was taken to clear only a comparatively narrow channel from the bar by the removal of 90,280 cubic meters of material, and dredging will probably be necessary in the near future.

*Cebu Harbor improvements.*—On August 10, 1911, a contract was entered into with a construction company for the building of 250 linear meters of plain and reenforced concrete wharf as an extension to the existing sea wall at Cebu. The contractor's plant was assembled on the ground about the last of September, and active work commenced during October. At the close of the year the work was progressing satisfactorily, four large standard piers and one small pier having been completed and the foundation driven for a fifth large pier. This wharf will accommodate vessels of 30 feet draft.

*Bais Harbor improvements.*—The improvements at the port of Bais, Oriental Negros, which will serve a large sugar-producing section, described in our previous report, were completed about May 1, 1912. The cost of the work, ₱67,000, considerably exceeded the first allotment on account of the elaboration of the scheme after the project was under way.

*Pandan Harbor improvements.*—Nine hundred linear meters of the right bank of the Abra River at Pandan, the port for Vigan, Ilocos Sur, were revetted as a protection against erosion at an approximate cost of ₱31,800 allotted by the undersigned. The revetment placed aggregated 5,740 square meters, some 10,000 cubic meters of stone delivered on the site of the work having been used therein. Five thousand five hundred cubic meters of sand and gravel back fill were used in indentations in order to secure proper alignment.

*Cagayan River improvements.*—The combination snag boat, dredge, and pile driver built by the bureau of navigation to maintain the channel of the Cagayan River and protect its banks reached Aparri on April 18, 1912. The river being subject to terrific floods, when all craft must seek shelter, the first project completed was the creation of a harbor of refuge for the snag boat herself and other craft. This was practically all that had been accomplished to the end of the year.

*Lighthouse construction.*—On account of the limited funds available for lighthouse permanent improvements, comparatively little has been accomplished on new work. Three reenforced concrete keepers' dwellings, which were under construction at the time of our preceding report, were completed; three reenforced concrete post-light beacons were established; two temporary structures consisting of wooden posts surmounted by platforms with plain box pedestals for the lamps were erected; two new standard 15-meter steel towers were placed at Ungay Point and Lucena; and minor improvements and repairs were made at 24 light stations. A standard channel beacon was built at Gubat, Sorsogon, the seven channel beacons at Cebu were completed, and five more of the same type were built at Bais, Oriental Negros, to mark the channel leading to the new wharf.

Preliminary surveys and investigations at seven places and four surveys for lighthouse reservations were made.

A fairly pretentious program of lighthouse construction and improvement is under consideration for the fiscal year 1913.

#### LIGHTHOUSE MAINTENANCE DIVISION.

There were in operation in the Philippine Islands on June 30, 1912, 145 lights, 65 beacons, and 105 buoys; 4 lights having been established and 1 discontinued; 10 beacons erected and 1 discontinued; and 2 buoys placed and 9 discontinued since our last report. These aids to navigation are maintained and operated by a force entirely Filipino, consisting of 177 keepers and assistants, 22 apprentices, and 82 boatmen.

The inspection and proper supervision of this service, distributed over a large area, being entirely too great a task for one official, the islands were, in July, 1911, divided into two lighthouse districts, the first district comprising all aids to navigation north of the 12th parallel of latitude, and the second district all south. Two lighthouse inspectors have been appointed and two cutters designated as lighthouse tenders. As a result stations are inspected more frequently and with greater regularity, and there has been an increase in the efficiency of the service and an improvement in the discipline of the men.

No funds having been made available for the purpose, no steps were taken to replace any of the smaller lights with acetylene gas beacons as had been contemplated. We hope, however, to establish several such beacons during the ensuing fiscal year. All repairs to apparatus have been made at the bureau shops.

It is believed that it may be stated without fear of contradiction that the lighthouse system in the Philippine Islands now compares favorably with that in any part of the world.

#### BUREAU OF POSTS.

##### PERSONNEL.

The administrative personnel of the bureau continued practically without change during the year. On June 30, 1912, the total number of officers and employees was 2,345, an increase of 160. Of this number 71 Americans and 214 Filipinos were in the classified civil service and 124 Americans and 1,936 Filipinos were unclassified.

The following statement of the number of American and Filipino officers and employees, exclusive of mail carriers and contractors at the close of each of the last 10 fiscal years, is presented to show the increase in the relative number of Filipinos employed:

June 30—	Americans.	Filipinos.	Total.
1903.....	234	128	372
1904.....	197	390	577
1905.....	156	456	612
1906.....	223	780	1,003
1907.....	210	881	1,091
1908.....	287	1,128	1,415
1909.....	201	1,166	1,367
1910.....	191	1,280	1,471
1911.....	194	1,704	1,898
1912.....	190	1,868	2,058

## POSTAL DIVISION.

*Post offices.*—There were at the beginning of the fiscal year 572 post offices in the Philippine Islands. Seventeen new post offices were established and 2 were discontinued, making a net gain of 15 offices, or a total of 587 on June 30, 1912.

*Free delivery service.*—Free delivery letter carrier service was established at 101 additional post offices outside the city of Manila, making a total of 397 offices at which such service is in operation. The cost of this service was ₱67,091.48, an increase of ₱26,952.26 over the previous year.

Letter carriers in the city of Manila delivered 2,058,561 pieces of mail, and collected 1,793,718 from street letter boxes, increases of 16 and 17.2 per cent, respectively. Special messengers delivered 10,797 articles bearing special-delivery stamps.

*Second-class publications.*—Thirteen new publications were admitted to the mails as second-class matter, and six discontinued, leaving a total of 77 publications entitled to the second-class mail privilege on June 30, 1912.

The amount of second-class postage paid was ₱13,751.36, an increase of 17 per cent.

*Registered mail handled.*—The following is a summary of the registered mail handled:

Items.	Fiscal year.		Increase.
	1911	1912	
Number of—			<i>Per cent.</i>
Pieces of mail registered at Philippine offices.....	510,085	535,137	4.9
Pieces received from the United States.....	57,729	67,151	16.3
Pieces received from foreign countries.....	67,071	74,124	15.6
Pieces sent to United States.....	66,671	73,728	10.5
Pieces sent to foreign countries.....	49,080	50,284	2.4
Pieces sent from one Philippine office to another Philippine office.....	394,334	411,125	4.2
Pieces handled by the Manila post office.....	577,350	633,910	9.7

*Exchange of mails with the United States.*—

Items.	Fiscal year—		Increase.
	1911	1912	
Number of—			
Arrivals from the United States.....	74	86	12
Pouches letters received from the United States.....	898	925	27
Pouches registers received from the United States.....	4,396	4,375	1.1
Sacks papers and merchandise received from the United States.....	19,999	19,449	1.550
Philippine mails arrived in the United States.....	64	69	5
Pouches letters sent to the United States.....	1,014	1,152	138
Pouches registers sent to the United States.....	1,787	2,076	299
Sacks papers and merchandise sent to the United States.....	3,016	3,108	92
Bags sent to United States ships and transports in foreign countries.....	570	1,455	585
Bags received from United States ships and transports in foreign countries.....	391	573	182

<sup>1</sup>Decrease.

*Dead-letter office.*—The 78,453 articles received in the dead letter office at Manila were disposed of as follows:

Returned to the United States.....	15, 105
Returned to foreign countries.....	4, 838
Request matter returned to senders in the Philippines.....	3, 836
Opened and returned to senders.....	29, 981
Containing valuables returned to senders.....	249
Destroyed.....	24, 003
Filed, containing valuables.....	441
<b>Total.....</b>	<b>78, 453</b>

At the close of the year there were on file in the dead-letter office 366 registered articles and 34 letters containing money, drafts, or stamps, and 1,029 letters and packages containing other valuables.

*Advertised mail.*—During the 12 months there were 28,826 pieces of mail advertised at the Manila post office, of which 2,895 were subsequently delivered.

*Cost of mail transportation.*—Due to extensions of service on new lines of the Manila Railroad Co., and new rates of pay effective July 1, 1911, there was an increase of ₱20,857.52 in the cost of transportation of mails on railroads.

An increase of ₱12,073.80 in the cost of other transportation between post offices was caused by the increased frequency of service on many routes and by improved methods of transportation such as the employment of automobile service in place of slower vehicles.

The transportation of Philippine mails to and through foreign countries cost ₱22,916.79 more than for the previous fiscal year, ₱21,529.12 of which represents the cost of transportation by way of the Trans-Siberian Railway for two years, the cost of this service for the fiscal year 1911 not having been reported from the central office of the Postal Union in time to be taken into the accounts for that year.

#### MONEY-ORDER DIVISION.

*Extension of service.*—Money-order service was established at 46 additional post offices and closed at 2 on account of the discontinuance of the post offices, leaving a total of 253 money-order offices in the Philippine Islands on June 30, 1912.

*Orders issued and paid.*—A brief tabulation of the business handled, as compared with the fiscal year 1911, follows:

Items.	Fiscal year—	
	1911	1912
Orders issued payable in the Philippines.....	₱8, 704, 244. 71	₱11, 184, 401. 70
Deposits of money-order funds received at Manila from Provincial offices..	7, 486, 226. 44	9, 302, 866. 84
Orders issued payable in the United States.....	3, 437, 020. 18	3, 529, 216. 04
Orders issued for payment in other countries.....	124, 601. 28	136, 729. 06
Orders of the United States and other countries paid in the Philippines..	418, 135. 32	429, 078. 94
Philippine orders paid in the United States and other countries.....	3, 489, 917. 78	3, 613, 435. 28

*Telegraphic transfers.*—Telegraphic transfers of money to the number of 8,335 were made by means of the money-order service, amounting to ₱2,256,458.38, for which ₱7,897.17 in money-order

fees, and ₱8,646.76 for cost of telegrams, was collected. These amounts, exclusive of cost of telegrams, are included in the money orders issued and paid in the Philippine Islands, in the paragraph preceding.

*Business with Hongkong.*—Pursuant to an agreement between the two administrations, a direct money-order service was established with the English colony of Hongkong on July 1, 1911. Because of the balance of business in favor of Hongkong, and the exchange transactions involved in settlements, this has not in its first year of operation been particularly profitable to the Philippine Islands. Three hundred and three orders were issued in the Philippine Islands payable in Hongkong, representing ₱15,028.86 Philippine currency, and but 81 orders were issued in Hongkong payable in the Philippine Islands, totaling ₱1,863.78, the percentage thus being 78.9 per cent of the orders and 89 per cent of the money involved payable in Hongkong.

*General.*—The total number of orders issued increased 20.7 per cent to 231,360, the value of which was ₱14,850,347.40, an increase of 21.1 per cent.

The total amount of money sent out of the islands by means of money orders was ₱3,665,945.70, as compared with ₱429,078.94, the amount paid here on orders issued in the United States and foreign countries.

#### TELEGRAPH DIVISION.

*Telegrams handled.*—The number of telegrams handled during the 12 months was 657,404, on which charges to the amount of ₱473,358.08 were collected, an increase of 151,102 telegrams and ₱105,339.38, respectively, over the previous year. Commercial telegraph business increased 34.6 per cent and government business 18.6 per cent.

*Transmission lines and offices.*—There were constructed 374 kilometers and 2 hectometers of new telegraph line, and 162.8 kilometers of old line were rebuilt. New cable to the extent of 199.753 kilometers was laid, and 321.167 kilometers of old cable were recovered.

The total kilometerage of telegraph and cable lines on June 30, 1912, was 9,010.84, and the number of telegraph offices on the same date was 267, 37 new offices having been opened and 8 offices closed during the 12 months.

*Wireless stations.*—A Telefunken wireless station was erected at Davao, Moro Province, at the joint expense of the bureau of posts and the province, and opened for business on March 6, 1912. In June construction work was commenced on wireless stations at Cuyo and Puerto Princesa, Palawan.

The bureau on June 30, 1912, operated wireless stations at 4 points, Davao, Jolo, Malabang, and Zamboanga—all in the Moro Province.

*Improvement of service.*—During the fiscal year 1911, the bureau paid a commercial telegraph company ₱10,568.16 to handle its business during cable interruptions, but this year, due to the considerable improvement brought about by the rebuilding of land lines, extensive repairs to cables, and the replacing of old and worn-out cables with new, the amount paid on this account was but ₱40.



*Principal items of construction work accomplished by administration—Continued.*

## RECAPITULATION OF PRINCIPAL ITEMS OF WORK BY ADMINISTRATION.

Items of work.	Engi- neers' estimate.	Construction work done to—					Per cent completed.
		July 1, 1911.	Oct. 1, 1911.	Jan. 1, 1912.	Apr. 1, 1912.	July 1, 1912.	
Open-cut excavations, all classes, cubic meters.....	1,591,650	258,983	350,845	426,357	524,602	649,061	41
Tunnel excavation.....cubic meters..	12,861	7,430	8,404	10,146	11,165	11,748	91
Concreting, all classes.....do.....	45,035	2,074	4,671	6,419	11,896	20,165	45

The following tabulation shows the status of all tunnel excavation, in linear feet:

Name.	Total length.	Excavation—			To be bored.
		To June 30, 1911.	During fis- cal year 1911-12.	To June 30, 1912.	
1. Carite.....	3,030	1,050	1,464	2,514	516
2. Toro Negro.....	2,678	802	1,580	2,362	314
3. Ancoones.....	1,989	130	810	940	1,029
4. Conuco.....	596	.....	596	596	.....
5. Patillas.....	590	480	140	590	.....
6. Lomas.....	540	.....	445	445	95
7. Felicita.....	520	492	28	520	.....
8. Felicita.....	518	.....	518	518	.....
9. Cariota.....	450	450	.....	450	.....
10. Dona Juana.....	200	200	.....	200	.....
Total.....	11,089	2,574	5,561	9,135	1,954

Of the above, 6,336 feet have been driven under contract and 2,799 by administration. There remain to be completed under contract 830 and by administration 1,124 feet.

## DIVISION OF HYDROGRAPHY.

Stream gaugings have been continued at all regular river, canal, and pumping stations. Several new stations have been established for the purpose of determining canal losses due to evaporation and seepage. All important river stations have been provided with flood gauges and more reliable information will be obtained on flood discharges. There are 62 hydrographic stations located in the eastern division and 88 in the western, requiring the services of 31 and 50 observers, respectively.

Special attention has been given to the preparation of maps showing the results of soil investigations, yield of cane under different classes of cultivation, condition of irrigation, and other data of immediate value in selecting lands for irrigation under the new system and for the use of the irrigation commission provided for by section 15 of the public irrigation law.

Heretofore 91 concessions to use water for domestic, manufacturing, and irrigation purposes from the streams flowing through the irrigation district have been granted. The status of many of the older concessions is indefinite, and some are unlimited as to the amount of water ceded and as to the area and location of land to be irrigated. Many, under a strict interpretation of the law, are subject to forfeiture. In general, the streams within the dry zone, except Patillas River, have been overappropriated. The collection of data on these concessions has been continued, including the securing of copies of the original concessions.

Considerable data, including measurement of water, have been collected on 79 pumping stations located within the district. The tabulation following shows the kind of pumps and how operated.

*Investments.*

	June 30—	
	1911	1912
Time deposits in Manila banks at 2½ per cent.....	P380,000.00	P500,000.00
4 per cent railway and municipal bonds.....	1,288,875.50	1,288,875.50
Real estate mortgages at 8 and 10 per cent.....	407,800.00	509,680.00
Total.....	2,076,675.50	2,358,555.50

The increase in the earnings of the bank was 27.5 per cent, while the increase in its expenses was but 3.2 per cent.

**OFFENSES AGAINST THE SERVICE.**

Investigations during the year by district inspectors resulted in the conviction of four postmasters and one operator for misappropriation of public funds; one clerk, one letter carrier, and two mail messengers for faithlessness in the custody of documents; and one clerk for forgery. Cases are pending in the courts against four postmasters for misappropriation of public funds; and one postmaster, one clerk, one letter carrier, and two mail messengers for faithlessness in the custody of documents. Twelve employees, other than those prosecuted, were dismissed for actions involving dishonesty, and eight were required to make reimbursement for losses made possible through their carelessness or failure to comply with the regulations.

**HEADQUARTERS BUILDING AND POST OFFICE, MANILA.**

The necessity for improved and enlarged quarters for the bureau of posts in the city of Manila is respectfully presented. During the last 12 years this question has been before the authorities at various times, but never has the situation been so acute as now.

The present structure, the Fortin Building, was occupied by the bureau on July 1, 1904, after it had been taken over from the military authorities and partially rebuilt to meet the then existing requirements. The building has never been more than a makeshift and a considerable annual expenditure has been necessary since the first outlay to hold it together. A gang of workmen has now been employed on it constantly since April, 1912, and the necessary work will probably not be finished for a number of weeks. The roof over a greater part of the building is in an unsatisfactory condition, leaks badly in a number of places, and will probably have to be renewed within a year. The supporting timbers under about half the floor are so badly rotted that it has broken through in several places. Expenditures for repairs from April to September, 1912, will probably amount to P20,000.

At present there are housed in this place the headquarters of the bureau, including the office of the director, his assistants and office force, the money-order division, postal savings bank division, telegraph division, supply division, including the storehouse, and the Manila post office. The business has grown so rapidly since 1904 that the building is far too small, and health conditions are not what they should be because of overcrowding. Its architecture is such that

sufficient natural light can seldom be obtained and it is necessary to use electric lights to some extent all day long every day.

From another point of view, the construction of a suitable post-office building in Manila would be a long step forward in aid of the publicity movement, both for the city and the islands as a whole. The appearance of the present structure, both outside and in, is so bad as to require no comment; and it is probably visited by every person who comes to the city on either business or pleasure. From it many unfortunate impressions are doubtless obtained.

It is believed that the appropriation of sufficient funds to construct and equip a suitable building for the Manila post office should not be longer delayed, and the question is respectfully presented for consideration.

#### FINANCES.

##### *Revenues, exclusive of Postal Savings Bank.*

	Fiscal year 1911.	Fiscal year 1912.
Postal division.....	P627,097.44	P698,812.10
Money-order division.....	70,904.70	82,437.24
Telegraph division.....	369,119.57	474,199.06
Total.....	1,066,821.71	1,255,449.40

##### *Expenditures, exclusive of Postal Savings Bank.*

	Fiscal year 1911.	Fiscal year 1912.
Plant and equipment.....	P268,060.82	P317,358.24
Administration.....	1,210,867.31	1,301,426.86
Maintenance.....	437,064.67	462,192.77
Supplies on hand June 30.....	16,490.74	64,391.10
Total.....	1,933,112.54	2,145,368.97

#### BUREAU OF COAST AND GEODETIC SURVEY.

The general plan in relation to the division of the expenses of this bureau between the Government of the United States and the government of the Philippine Islands, which has applied since January 1, 1901, was followed during the year.

#### PERSONNEL.

Practically no change has been made in the personnel of the bureau during the year. Capt. P. A. Welker was in charge of its operation during the entire period, with a field force, including assistants and aids, watch officers, mates, engineers, surgeons, recorders, petty officers, observers, seamen, firemen, tide observers, laundrymen, and messmen, of 258, and an office force of 47.

#### FIELD OPERATIONS.

Five steamers—the *Pathfinder*, *Fathomer*, *Romblon*, *Marinduque*, and *Research*—were in the field continuously, except during intervals when repairs were necessary. One shore party was engaged for nine

months in triangulation in Mindanao and another during a period of three months in making observations for the determination of the magnetic elements in various parts of the islands.

*Triangulation.*—The triangulation over the large water area bounded by Luzon, Burias, Masbate, Panay, and Tablas Islands, involving lines as much as 83 statute miles in length, has practically been completed, only a few additional observations for the purpose of increasing strength being necessary.

The triangulation across Mindanao Island connecting Iligan and Illana Bays, which was carried on under the protection of troops from the United States Army, the work being in a region inhabited by Moros not altogether peaceful, has been completed. The Military Information Division of the Army took this opportunity to combine forces with the Coast and Geodetic Survey for securing a topographical survey of the same region. The axial length of this triangulation is about 70 miles and the area covered approximately 1,000 square miles. The United States Army, in addition to affording military protection, furnished the wagons, pack trains, and launches for transportation and all the necessary working tools for clearing lines of sight and opening trails, thus materially decreasing the expense of the coast and geodetic survey and rendering signal assistance to the government of the Philippine Islands.

Both of the above projects were difficult to execute and involved much labor and expense, but the returns obtained are of great value, as the result is a complete chain of triangulation from the north coast of Luzon to the south coast of Mindanao, thus providing the means of accurately connecting and coordinating the surveys of the islands.

The triangulation connecting Mindoro and Panay and extending across the Cuyos to the Calamianes and Palawan, involving lines as much as 91 statute miles in length, has been well advanced, with the prospect that it will be completed early in the fiscal year 1913. This piece of work involves the longest lines that will be required for any surveys in the Philippine Islands, and its completion will result in the connection of the surveys in Palawan with those of the entire Archipelago.

Important and extensive triangulation was also executed in connection with the topographic and hydrographic surveys, on the east coast of Mindanao, from Cavit Point to Lianga Bay; on the west coast of Negros from Binalbagan to Apo Island; and in the area bounded by Samar, Biliran, and Masbate Islands.

During the year 536 geographical positions were accurately determined by triangulation, all of which are available for any future surveys that may be required along the coasts where they are located, and also for other bureaus for the extension of cadastral and topographic surveys into the interior.

*Topography.*—Topographic surveys were executed on the east coast of Mindanao, west coast of Samar, east and north coasts of Biliran, Ragay Gulf, west coast of Masbate, west coast of Negros, Sibuyan and Romblon Islands, and a part of the Cuyo Islands. This work covered 1,316 miles of shore line, which was executed in detail and was extended into the interior to a distance sufficient to cover all requirements for navigation charts.

*Hydrography.*—Hydrographic surveys were made off the east coast of Mindanao, west coast of Negros, the sea north of Panay and between Masbate and Tablas Islands, west coast of Panay, the northern part of the Sulu Sea, between Panay and Palawan, including the locality about the Cuyo Islands, Basilan Strait, Ragay Gulf, and the area bounded by Samar, Biliran, and Masbate Islands.

The hydrographic survey of the southwest coast of Negros Island developed a number of anchorages easy of access and suitable for use during the northeast monsoon. The entire coast of this region is free from dangers to navigation, with the exception of inshore reefs.

The hydrography of the west coast of Panay was completed to the junctions with the work of the years 1907 and 1910. In this region it was found that approximately 15 to 25 miles offshore there exists a narrow submarine valley 500 to 800 fathoms in depth beyond which to the westward is a great bank with less than 100 fathoms which extends the entire distance to Palawan Island. Upon this bank, about the Cuyo Group, many shoals were located. Isolated coral pinnacles from 30 to 50 feet in height and only a few yards across also exist in this region. These are difficult to discover by a regular system of sounding lines or by the color of the water, and eventually much closer hydrography than has been found necessary in other parts of the archipelago will be required about the Cuyos and over the extensive bank to the westward.

*Magnetic survey.*—In March, 1912, a magnetic observer arrived in Manila from the Washington office of the Coast and Geodetic Survey to take up the work of a magnetic survey in the Philippine Islands. Actual field work was commenced on March 25, and from that day to the end of the fiscal year 14 stations were occupied. A meridian line was established at Manila, at the request of the local authorities, in connection with the regular necessary observations for the magnetic declination.

*Mystic River of Palawan.*—At the request of the undersigned, two of the officers of the service were detailed in September, 1911, to make a special survey of a subterranean river which empties into a cove near the center of St. Paul Bay on the west coast of the island of Palawan. It crosses the beach through a narrow channel immediately behind which is a lagoon about 120 meters long by 25 to 30 meters wide and with depths of from 6 to 8 feet. The river empties into the upper end of this lagoon through an irregular arched opening 6 or 7 meters high and roughly three times this in width at the base of a vertical cliff. The survey was conducted in ship's boats to a point about 4,000 meters from the mouth of the stream, where the channel was found to be entirely blocked in a small pool bounded on the right by a solid rock wall and on the left by a pile of boulders and loose débris perhaps 12 meters in height which had apparently fallen from the roof. The soundings taken indicate a depth of from 2 to 39 feet, the depth at the point where the stream was blocked being 15 feet. The height of the roof in average sections varied from about 6 meters to about 15 meters, increasing in individual chambers to as much as 30 meters. Over the fallen rock pile obstructing the passage the roof was perhaps 40 meters above the stream. The width of the cavern also varied from 10 to 20 meters in the lower stretches to 50 or 60 meters in the more irregular upper sections.

The stream in general fills the entire cavern between usually straight walls and there are no navigable side openings of any importance. The water is fresh and, at the time of the survey, was flowing in a gentle current hardly exceeding one-half mile an hour. The rock specimens were all said to be limestone of a fine-grained crypto-crystalline character. It is probable that this is a comparatively recent fault appropriated by a surface stream.

During a second visit to this river, its entire length was again traversed to the limit of the survey and a further superficial investigation across the obstructing pile of rock made. This showed that the river continued for an unknown distance beyond. When the opportunity offers, canoes or light canvas boats which can be transported across the obstruction will be taken in, and the investigation will be continued to the source of the stream if possible.

*Plan.*—The practice of the bureau has been to take up new surveys in the order of the most pressing needs of the mariner with due regard to the commercial importance of unsurveyed regions and to the economy resulting from continuous connected surveys, thus avoiding the necessity for extensive future adjustment. We have now reached the point where there are few localities of commercial importance which remain unsurveyed, and there is a noticeable decrease in the number of applications for surveys. It is planned to proceed to the completion of the work in an uninterrupted, systematic, and connected manner, and we hope to show increased economy and efficiency as a result.

#### MANILA OFFICE.

*Computing division.*—There were received from the field and registered in this division 524 survey records, distributed as follows:

Hydrographic.....	280
Tidal.....	134
Triangulation.....	93
Magnetic.....	14
Miscellaneous.....	3
Total.....	524

The triangulation of the entire circuit of the island of Cebu, with a main scheme about 300 miles in linear axial extension, involving five measured bases in addition to the closures in latitude, azimuth, and length, was completely adjusted, as was also the triangulation of that portion of the Pacific coast of the Archipelago from Tacloban, Leyte, and the southern coast of Samar to Cautit Point on the east coast of Mindanao, comprising a chain of about 200 miles, including 50 miles of triangulation on the east coast of Dinagat necessary to close the circuit of that island.

The entire triangulation in the area bounded by Panay, Mindoro, Luzon, and Masbate is now in process of adjustment.

*Drafting division.*—During the year 105 original hydrographic and topographic sheets were received from field parties, making a total of 982 received since the date of the commencement of surveys in the islands. Of this total number 311 remain at the Manila office, the others having been forwarded to Washington. Twenty tracings for chart publications were completed and forwarded to the Wash-

ington office for printing, consisting of seven correction pieces, four new editions, and nine new charts.

At the end of the fiscal year 14 chart drawings, consisting of 2 correction pieces, 1 new edition, and 11 new charts were in preparation.

A table of distances between ports of the Philippine Islands was prepared in this division for the use of the board of rate regulation in determining proper charges for the transportation of freight and passengers. All questions regarding distances between ports are submitted by the board to the bureau of coast and geodetic survey for determination, and the table of distances is kept up to date by the notation of additions and changes.

The list of geographical names, which is maintained in this division, is steadily growing and is estimated at present to consist of considerably more than 30,000 names.

*Nautical division.*—In this division Sections III and IV, Philippine Islands Sailing Directions, were revised and republished and material for the same class of work for Section I has been gathered together. The following is a list of publications issued during the fiscal year:

Charts issued to—

Agents.....	981
Military authorities.....	832
Naval authorities.....	1, 076
Civil authorities.....	1, 561
Coast and geodetic survey vessels.....	157
Coast and geodetic survey suboffice.....	288
Miscellaneous parties.....	234
Sold for cash.....	1, 723
Total issued.....	6, 852

Tide tables:

Sold for cash.....	59
Issued to agents for official use.....	61
Total issued.....	120

Sailing Directions, catalogues, and Notices to Mariners:

Sailing Directions.....	1, 027
Catalogues.....	221
Notices to Mariners.....	5, 130

*Geographical division.*—Considerable progress was made in the compilation work of this division during the year and six maps on a scale of 1:200,000 are well advanced. These maps cover the regions about Panay, central Luzon, southwestern Luzon, northern Luzon, southeastern Luzon, and Cebu and Bohol. It is estimated that those of Panay, central Luzon, and southwestern Luzon will be ready for printing about September 1, 1912, and that blue-print copies of northern Luzon will be ready for distribution by about July 15, 1912. In addition to the 1:200,000 scale maps a 1:1,000,000 scale map on a polyconic projection is being prepared. This is intended for a wall map and will be valuable as such because of its size and the amount and accuracy of the information it will contain. It is in conformity with the scale adopted by the International Geographic Congress for the atlas of the world. The projection for this map has been completed and the compilation is now in progress.

## GENERAL PROGRESS.

The following figures indicate the field work accomplished during the year:

## Triangulation:

Area covered.....	square miles..	18, 269
Signals and scaffolds erected.....		308
Stations occupied (horizontal angles).....		269
Geographical positions determined.....		536
Base lines measured.....		8
Azimuth stations occupied.....		3
Magnetic stations occupied.....		16

## Topography:

Area covered.....	square miles..	1, 315
Detail coast line surveyed.....	miles..	1, 316
Rivers and creeks surveyed.....	do...	318
Roads surveyed.....	do...	158
Topographic sheets completed.....		49½

## Hydrography:

Area sounded.....	square miles..	9, 535
Run while sounding.....	miles..	25, 297
Soundings made.....	number..	314, 723
Tidal stations established.....		23
Current stations occupied.....		10
Hydrographic sheets finished.....		53½
Days in the field.....	number..	1, 627

The number of miles of detail or actual shore line surveyed during the past eight years is as follows:

	Miles.		Miles.
1905.....	494	1909.....	1, 017
1906.....	626	1910.....	1, 637
1907.....	1, 495	1911.....	1, 229
1908.....	1, 573	1912.....	1, 316

The number of miles of hydrography run during the same period is:

	Miles.		Miles.
1905.....	7, 573	1909.....	22, 552
1906.....	11, 457	1910.....	19, 208
1907.....	23, 339	1911.....	23, 432
1908.....	24, 454	1912.....	25, 297

For reference in relation to the subject of general progress the following information is furnished:

Total length of general coast line of the Philippine Islands (approximate) statute miles.....	11, 511
General coast line surveyed during the fiscal year ended June 30, 1912 (approximate)..... statute miles..	748
Total length of general coast line surveyed to June 30, 1912 (approximate) statute miles.....	6, 658
Detail shore line surveyed during the fiscal year ended June 30, 1912, statute miles.....	1, 316
Total length of detail shore line surveyed to June 30, 1912..... statute miles..	11, 308
Lines of soundings run during the fiscal year ended June 30, 1912..... do...	25, 297
Total run to June 30, 1912..... do...	172, 876
Hydrography surveyed during the fiscal year ended June 30, 1912, square statute miles.....	9, 535
Total hydrography surveyed to June 30, 1912..... square statute miles..	66, 217

At the close of the fiscal year 1912, 57.8 per cent, exclusive of Spanish and British surveys, of the entire general coast line of the archipelago had been surveyed, compared with 51.3 per cent at the close of the fiscal year 1911, an advance of 6.5 per cent.



## COST.

At this date this item can not be supplied in full, as the statements from the disbursing agent at the Washington office are not yet available. The cost of the bureau to the Philippine Islands has been ₱206,142.22, an increase of ₱960.92 over the cost for the previous year.

## BUREAU OF LABOR.

## PERSONNEL.

The number of officers and employees in the bureau of labor on June 30, 1912, was 26, an increase of 4 since July 1, 1911. They were distributed: 12 at the Manila general office, 3 at the free employment agency at Manila, 4 at the free employment agency at Cebu, 3 at the free employment agency at Iloilo, and 4 at the free employment agency at Vigan, Ilocos Sur.

## EMPLOYMENT AGENCIES.

In accordance with a provision in Act No. 1868, creating a bureau of labor in the department of commerce and police, which reads, "The purpose of this bureau shall be \* \* \* to organize in such towns in the Philippine Islands as it may deem necessary or advisable one or more free employment agencies," three such agencies were established, as reported previously, located at Manila, Cebu, and Iloilo. On January 29, 1912, a fourth agency was opened at Vigan, Ilocos Sur, to serve the densely populated Ilocos Provinces and those adjoining.

The following tabulation will give a general idea of the activity of these agencies during the year:

Agency.	Applicants registered.	Employed.	Rate per cent of applicants employed.
Manila.....	2,986	1,759	58.90
Cebu.....	2,771	2,185	78.84
Iloilo.....	1,729	736	42.56
Ilocos Sur.....	370	163	43.78
Total.....	7,856	4,842	61.64

Of the total number of 4,842 persons for whom employment was found by the 4 agencies, 2,244 were transferred to points outside of the provinces in which the agencies are located. Of this number the Manila agency sent 440 to the Province of Mindoro for plantation work and 265 to the Province of Cavite. The Cebu agency supplied 500 to Occidental Negros, 348 to the Moro Province, 132 to Bohol, and 101 to Leyte.

## INDUSTRIAL STATISTICS.

The compilation of statistics concerning the more important industries carried on in the islands is progressing satisfactorily, but very slowly on account of the limited force of the bureau. The data secured includes the nature and location of the establishments, capital

invested in grounds, machinery, and tools; the number of laborers employed, showing age, sex, etc.; the hours of labor; total amount of wages paid laborers; value of production, and other similar information, for calendar years, a printed form being furnished to factories and corporations to be filled out. While a complete analysis of the figures so far obtained would be of little value, as not nearly all the industrial establishments are on record as yet and in some cases accounts have not been kept in such shape that the desired information can be furnished, the table below will show in general for some of the more important industries, the reports secured for the calendar year 1911:

	Number of establish- ments.	Capital invested.	Wages paid.	Value of production.
Aerated water factories.....	31	P68,800	P30,942	P128,376
Bakeries.....	88	254,794	187,283	1,345,098
Brick and paving-stone factories.....	7	75,800	25,278	74,197
Button factories.....	2	56,000	9,633	81,000
Candy and sweetmeat factories.....	24	44,317	35,820	323,309
Carriage works.....	65	195,347	157,537	457,434
Chocolate factories.....	20	58,630	35,777	394,844
Cigar factories.....	53	4,262,446	2,183,049	12,202,616
Distilleries.....	27	1,899,372	89,231	1,191,460
Foundries.....	16	117,170	88,890	322,133
Furniture factories.....	39	1,154,563	356,110	1,436,148
Hat factories.....	9	378,100	114,174	1,119,465
Printing and lithographing establishments.....	15	591,737	159,464	564,193
Rice mills.....	99	1,124,681	135,905	2,366,534
Rope factories.....	2	425,000	31,690	295,000
Sawmills.....	15	1,015,628	164,171	1,075,893
Shoe factories.....	62	181,714	91,357	419,400
Slipper factories.....	116	101,843	140,573	542,539
Soap factories.....	35	78,850	36,805	726,241
Sugar mills.....	916	9,813,526	3,010,743	7,296,183
Tanneries.....	18	6,000	44,282	203,439

For more detailed information the annual report of the director of labor should be consulted.

#### DOMESTIC INDUSTRIES.

The bureau is conducting an investigation regarding, and making a compilation of, the domestic industries in the Philippine Islands, showing the location of the works, the people engaged in them, hours of labor, amount of product, the disposition of the same, etc. This record will be confined to purely household industries, such as the making of sacks, baskets, candles, rope, native liquors, brooms, mats, hammocks, bamboo and rattan furniture, etc., and will not include anything of the importance of a factory or commercial house. Much of the information in connection with this is being secured from municipal presidents, who are in a position to render valuable assistance.

#### STRIKES.

There were 20 small strikes during the year—16 in the city of Manila and 4 in the provinces—involving a provincial government, shipping houses, tobacco factories, a construction company, a saw-mill, a printing establishment, and a shoe factory. The number of strikers were 4,488, of whom 3,756 were employees of tobacco fac-

tories, 686 common laborers, 35 employees of a printing establishment, 9 shoemakers, and 2 foremen. Three strikes lasted 1 day each; two, 2 days each; two, 3 days each; one, 6 days; one, 7 days; two, 8 days each; one, 12 days; one, 15 days; two, 17 days each; one, 20 days; and four, 23 days each. The causes of the various strikes covered about the same ground as the reasons for similar disturbances the world over, namely: Desires for the transfer of a factory division foreman to another division; the reinstatement of discharged employees; the cancellation of an order affecting the management of personnel; increased wages; the restoration of old wages; a reduction of hours of labor; the expulsion of a foreman; a reduction in the amount of work required. Sixteen of these strikes were adjusted by the accession of the employers to the demands of the strikers, and the dissatisfied employees failed of their purpose in the other four.

#### LABOR ACCIDENTS.

During the fiscal year there were 170 labor accidents recorded at the bureau, of which a majority, 93, occurred in the city of Manila. This was an increase over the figures for the previous year in the total number of accidents of 2, and of accidents in the city of Manila of 27. The 170 accidents resulted in injury to 215 persons, an increase of 5 over the previous year. Of these, 101 were victims of accidents in the city of Manila, an increase of 27. Of the victims, 56 died as a result of their injuries, 156 recovered, and final report on the remaining 3 is pending. Of the 156 who recovered, 12 are permanently incapacitated for work. One hundred and sixty accidents were reported as "casual," for which no responsibility can be fixed; 8 were due to carelessness or recklessness on the part of employers and employees; and final reports on the remaining 2 are not yet in. Of the total number of victims, 153, representing injured persons and the heirs of those who died, received settlements from their employers, 47 received nothing, and negotiations with regard to the remaining 15 are not yet completed.

#### CLAIMS AND COMPLAINTS.

There were submitted to the bureau during the year 199 claims and complaints, as compared with 49 during the previous year, which would seem to indicate a considerably increased appreciation of the value of the bureau in adjusting matters of this nature. Of these, 188 were claims for wages alleged to be due, 2 for indemnity for damages, 2 for the return of alleged minor children recruited by a commercial labor agency for the cane fields of Hawaii, 3 regarding readmission to employment of expelled employees, and the others complaints against alleged abuses. There were 890 persons interested in the claims and complaints presented, of whom 369 were common laborers, 257 tobacco workers, 47 household servants, 45 carpenters, and 29 vehicle drivers, the remainder being of a score of other classes of employment. Of the 199 claims and complaints, 118 were decided favorably to the claimants, 38 unfavorably, 2 were dropped by the interested parties, and 41 are pending. Eight of the claims were taken to court, 6 being decided favorably to the claimants, 1 unfavorably, and 1 is pending. The total amount of wages involved in 188 claims was ₱4,801.37, of which ₱2,009.23 has been collected.

## LEGISLATION.

The following laws which are of direct interest to the bureau of labor in connection with its work and investigations were enacted by the Philippine Legislature and the Philippine Commission during the period July 1, 1911, to June 30, 1912:

Act No. 2071, entitled "An act prohibiting slavery, involuntary servitude, peonage, and the sale or purchase of human beings in the Mountain Province, and the Provinces of Nueva Vizcaya and Agusan, and providing punishment therefor."

Act No. 2098, entitled "An act relating to contracts of personal service and advances thereunder and providing punishment for certain offenses connected therewith."

Act No. 2129, entitled "An act authorizing municipalities and townships to establish a register of mechanics or day laborers residing therein, and for other purposes."

## EMIGRATION OF LABORERS TO HAWAII.

The Manila agent of the Hawaiian Sugar Planters' Association in his report to the bureau of labor states that in the course of the fiscal year 1912 a total number of 3,820 Filipinos departed from Philippine ports under care of agents of the company to work in the cane fields and sugar mills of Hawaii. Of this number, 3,205 were men, 352 women, and 263 children and infants.

No evidences of dissatisfaction with conditions in Hawaii have come to our attention during the year; in fact, a private investigation of all the large plantations there, conducted by a member of the Philippine Assembly, found the Filipino colonies as a whole contented.

## GENERAL.

We repeat what has been previously stated by a number of officials, that commercial and economic conditions in the Philippine Islands have shown a continual change for the better since the passage by Congress of the tariff law of 1909, commonly known as the Payne bill. The effect of this law has naturally extended through commercial organizations and to the common laborer, with the result that the old rumors of famines because of food shortage or the lack of work to enable laborers to earn money for the purchase of the necessities of life are becoming things of the past. The sugar and tobacco industries especially, and the people engaged in them, have benefited from the throwing open of the American market.

The sales agency established by the government by Act No. 2061, to distribute the products and manufactures of the people of the provinces inhabited by Moros or other non-Christian tribes, to assist the inhabitants of such provinces to find a market for their labor, and to stimulate the interest of persons outside of the Philippine Islands in the products of Moro and other non-Christian Provinces should do much to encourage native industries in the localities mentioned. At the close of the year the building in which the agency will be housed, located in the port district, city of Manila, was nearing completion. It will probably be two or three years, however, before the results of its establishment will be generally noticeable in the provinces from which it will draw its stock.

## COST.

The entire cost of operating the bureau of labor for the year ending June 30, 1912, including all expenses of whatever nature, was ₱53,100.63. Of this amount, ₱28,778.68 was expended for salaries and wages.

## OFFICE OF THE SUPERVISING RAILWAY EXPERT.

## PERSONNEL.

The staff employed was the same as for previous years. Two inspecting engineers, one of whom will not return from the United States before January, 1913, availed themselves of leave of absence. The work of the office and field force has been principally the inspection of construction work and the checking of expenditures therefor on the Manila Railroad under Acts Nos. 1510 and 1905.

An inspecting engineer maintained his office in Baguio during the official summer season from February 12 to June 3, 1912.

## LINES AUTHORIZED, CONSTRUCTED, AND IN OPERATION.

The following table shows the kilometerage of railroad lines authorized by law to be constructed in the Philippine Islands, with the length constructed, to be constructed, and in operation on June 30, 1912:

Road.	Author-ized.	Constructed.		To be con-structed.
		In operation.	Not in operation.	
Manila Railroad Co. ....	<sup>1</sup> 1,306.9	725.8	16.3	<sup>1</sup> 564.8
Philippine Railway Co. ....	368.6	212.0	.....	156.6
Manila Electric R. R. & Light Co. ....	50.7	47.4	.....	3.3
Manila Suburban Railways Co. ....	19.9	9.9	.....	10.0
Tarlac Railway Co. ....	20.6	<sup>2</sup> 20.6	.....	.....
Davao Tramway Co. ....	7.2	7.2	.....	.....
Insular Coal Co. ....	12.0	12.0	.....	.....
Cebu Electric Line. ....	(?)	.....	.....	(?)
Total. ....	<sup>1</sup> 1,785.9	1,034.9	16.3	<sup>1</sup> 734.7

<sup>1</sup> Approximate.

<sup>2</sup> Line has been in operation, but not operated the past year.

## MANILA RAILROAD CO.

*Construction.*—During the fiscal year work was executed as follows:

	Northern lines.	Southern lines.	Total.
	Km.	Km.	Km.
Grading. ....	7.3	47.0	54.3
Track laying. ....	8.5	61.8	70.3
Line opened. ....	16.4	88.7	105.1

Construction on the line to Baguio, the summer capital, which leaves the main line at Aringay, has been commenced. Grading on the Aringay end has been partially completed as far as kilometer 10.7, and a considerable quantity of grading has been done on the Baguio end for a distance of about 7 kilometers, none of the work being entirely completed. Preliminary work has been accomplished looking toward the ordering of steel bridge material, and progress is being made in the construction of the south one of the five or more tunnels on the line. Twelve kilometers of rack track will be required, and the rack expert is in Europe to order material and equipment for that part of the line.

The main line south was definitely located in 1907 and 1908, with the exception of that portion between Lucena and Nueva Caceres. During the fiscal year 1912 a considerable part of the location between Lucena and Calauag, Tayabas, on the east coast of Luzon, has been completed, and on June 30, 1912, construction was under way at Hondagua, the east coast port near Lopez. A maximum grade of 1.2 per cent has been obtained between Lucena and the head of Ragay Gulf, but beyond that point to Nueva Caceres it may be impossible to obtain so light a grade.

Beginning with July 1, 1912, it will be necessary for this company to lay an average of 91 kilometers of track per annum in order to complete the lines authorized under Acts Nos. 1510 and 1905 by September 12, 1918, as required.

**Bonds issued.**—To July 1, 1911, certificates for the issue of bonds on guaranteed lines (southern lines) of the Manila Railroad Co. to a total of \$2,996,000 United States currency had been approved. On October 18, 1911, additional certificates to the amount of \$940,000 United States currency were authorized, and on January 22, 1912, \$1,000,000 United States currency, making the total authorized bond issue on guaranteed lines on June 30, 1912, \$4,936,000 United States currency. These bonds cover 229 kilometers (142.3 miles) of line, all in full commercial operation. The average cost, therefore, to June 30, 1912 (southern or guaranteed lines only) has been ₱43,110 per kilometer, or \$34,688 United States currency, per mile.

The government has paid out in interest on these guaranteed bonds to the end of the fiscal year ₱444,742.22, of which all but ₱33,730.25 has been returned to the government from net earnings, with ₱14,270.14 additional to be returned for the fiscal year 1911.

Since the calendar year 1910 net earnings have been sufficient to pay fixed charges and leave a considerable surplus to be disposed of by the directors of the company.

**Operation, northern lines.**—On June 30, 1912, there were on the northern lines 441.7 kilometers of main track in operation, there having been an increase of 0.4 kilometer since the same date in 1911. Owing to the manner in which the books of the railway company are kept, operating results can be shown only by calendar years to December 31, 1911:

	Calendar year—		Increase.
	1910	1911	
Average operated kilometerage.....	409.1	441.7	32.6
Operating revenue.....	₱2,404,785.60	₱2,833,147.81	₱428,362.21
Operating expenses.....	1,072,974.47	1,257,153.20	184,178.73
Net operating revenue.....	1,421,811.13	1,575,994.61	154,173.48
Taxes.....	20,213.28	28,524.65	8,311.37
Operating income.....	1,401,597.85	1,547,469.96	145,867.11
Income from other than transportation.....	297,512.20	354,239.95	56,727.75
Gross income.....	1,699,110.05	1,901,704.91	202,594.86
Deductions from gross income:			
Interest on funded debt.....	(1)	1,599,840.00	.....
Other interest.....	(1)	101,144.80	.....
Total deductions from gross income.....	.....	1,700,984.80	.....
Net corporate income.....	.....	200,720.11	.....
Percentage of operating expenses to gross operating revenue.....	43.0	45.0	2.0

<sup>1</sup> No report.

## EQUIPMENT.

	Calendar year—		Increase.
	1910	1911	
Locomotives.....	64	64	.....
First-class passenger cars.....	8	8	.....
Second-class passenger cars.....	10	10	.....
Third-class passenger cars.....	68	76	8
Combination passenger cars.....	26	28	2
Parlor cars.....	1	1	.....
Baggage, express, and postal cars.....	33	33	.....
Freight cars.....	694	770	76
In company's service.....	156	177	21

<sup>1</sup> Decrease.

New 65-pound rail was used in replacement of 45-pound rail on several kilometers of line. Washouts in the latter part of the year were numerous and expensive, but the track generally was kept in excellent condition.

*Operation, southern lines.*—On December 31, 1910, there were 119.9 kilometers of the southern lines in operation, and on December 31, 1911, this figure had been increased to 128.8 kilometers. The results of operation follow:

	Calendar year—		Increase.
	1910	1911	
Average operated kilometerage.....	111.8	128.8	17.0
Operating revenue.....	P201,869.73	P761,850.16	P559,980.43
Operating expenses.....	134,459.02	352,583.03	218,124.01
Net operating revenue.....	67,410.71	409,266.58	341,855.87
Net revenue from outside operations.....	658.84	4,487.13	3,828.29
Total net revenue.....	68,069.55	413,753.60	345,684.05
Taxes.....	1,574.74	8,124.18	6,549.44
Operating income.....	66,494.81	405,629.42	339,134.61
Other income.....	(1)	248,839.61	248,840.61
Gross income.....		654,469.03	
Deductions from gross income:			
Rent of joint facilities.....	(1)	27,329.21	27,330.21
Interest on funded debt.....	(1)	229,703.20	229,704.20
Other interest.....	(1)	242,676.93	242,677.93
Total deductions from gross income.....		499,709.34	
Net corporate income.....		154,759.75	
Percentage of operating expenses to gross operating revenue....	67.0	46.3	<sup>2</sup> 20.7

<sup>1</sup> No report.<sup>2</sup> Decrease.

## EQUIPMENT.

	1910	1911	Increase.
Locomotives.....	21	26	5
Cars:			
First and second class passenger.....	5	7	2
Third-class passenger.....	28	28	.....
Kitchen.....		1	1
Inspection.....		1	1
Baggage, express and combination.....	13	22	9
In freight service.....	190	241	51
In company's service, freight.....	121	124	3

No accidents have been reported from the southern lines, and only minor interruptions to traffic were caused by storms and washouts.

## PHILIPPINE RAILWAY CO.

*Construction, island of Cebu.*—All construction accounts pertaining to Cebu were practically closed in March, 1912. The only item remaining on which bonds may be issued is unsettled right of way, and it is hoped that this will be all adjusted within a few months.

To July 1, 1911, certificates for the issue of \$3,268,000 United States currency of bonds had been signed by the government, and additional certificates to a total of \$49,000 United States currency were approved during the fiscal year 1912, making the total bond issue authorized to date for construction on the island of Cebu \$3,317,000, United States currency. The cost of this line is, therefore, to June 30, 1912, ₱69,394 a kilometer, or \$55,842 United States currency, a mile.

*Construction, island of Panay.*—As on the island of Cebu, construction work, so far as guaranteed bonds are concerned, was practically closed in March, 1912, with the exception of right of way matters.

The amount of bonds, certificates for the issue of which had been signed prior to July 1, 1911, was \$4,839,000 United States currency. Additional certificates to a total of \$226,000 United States currency have been approved during the fiscal year, so that on June 30, 1912, the total amount of bonds authorized by the government to be issued for construction on the island of Panay was \$5,065,000 United States currency, from which it will be seen that the cost of the line on this island to the end of the fiscal year has been ₱87,102 a kilometer, or \$70,055, United States currency, a mile.

The average cost of the lines on both Cebu and Panay has been ₱79,113 a kilometer, or \$63,645 United States currency, a mile.

*Interest paid on bonds issued.*—To the end of the fiscal year 1912 the government has paid out in interest on the guaranteed bonds of the Philippine Railway Co., including interest due on July 1, 1912, but excluding all cost of exchange, ₱2,241,828.24. Of this amount there has been returned to the government from net earnings (not including a payment of ₱58,073.47 due June 30, 1912, but not paid until August 16, 1912) ₱47,691.53, leaving an amount due the government of ₱2,194,136.71.

*Operation, islands of Cebu and Panay.*—The operating accounts of the Philippine Railway Co. are kept by fiscal years commencing July 1, and ending June 30.

The length of line in operation on June 30, 1912, was:

	Kilometers.
<b>Cebu:</b>	
Main line.....	95.60
Sidings.....	3.23
Total.....	98.83
<b>Panay:</b>	
Main line.....	116.40
Sidings.....	2.34
Total.....	118.74
Gross kilometerage operated.....	217.57



	Fiscal year—	
	1911	1912
Operating revenues.....	(1)	P773,940.00
Operating expenses.....	(1)	590,548.40
Net operating revenues.....	(1)	177,092.50
Taxes.....	(1)	3,751.09
Operating income.....	(1)	173,341.41
Other income.....	(1)	6,457.80
Gross income.....	(1)	179,799.21
Deductions from gross income:		
Interest on funded debt.....	(1)	660,405.24
Additions and betterments charged to income.....	(1)	51,478.24
Appropriation to reserves.....	(1)	22,555.97
Total deductions.....	(1)	734,439.55
Net corporate deficit.....	(1)	554,640.34

<sup>1</sup> No consolidated report.

## EQUIPMENT.

	Fiscal year—		Increase.
	1911	1912	
Locomotives.....	15	15	
Cars:			
Parlor and first-class combination.....		1	
First and second class combination.....		7	
Second-class.....		12	
Third-class.....	45	21	8
Second-class and baggage combination.....		6	
Baggage, express, and postal.....		1	
Others in passenger service.....		2	
Freight.....	155	192	37
In company's service.....	49	7	142

<sup>1</sup> Decrease.

A few minor accidents have been reported. The track on the island of Cebu has been maintained in good condition, that on the Island of Panay only fair.

## MANILA ELECTRIC RAILROAD &amp; LIGHT CO.

*Construction.*—On March 24, 1911, by Ordinance No. 144, the municipal board of the city of Manila authorized the Manila Electric Railroad & Light Co. to construct a line along Taft Avenue, Calles Herran, San Marcelino and Sandejas to Vito Cruz, and on June 30, 1912, 3.73 kilometers had been completed. This company operates the only "standard gauge" (4 feet 8½ inches) track in the islands.

*Operation.*—This company has changed its methods of reporting operating transactions from a fiscal year ending June 30, to the calendar year, so that this report for the calendar year overlaps the previous report for the fiscal year:

	Fiscal year ending June 30, 1911.	Calendar year 1911.
Kilometerage of lines in operation.....	64.7	66.0
Operating revenue.....	P1,244,048.35	P2,621,701.17
Operating expenses.....	P641,839.86	P1,251,255.28
Operating income.....	P602,208.49	P638,702.16
Percentage of operating expenses to gross revenue.....	52.0	48.0
Total pay passengers carried.....	14,160,332	14,666,264

The equipment of this line consisted of 105 passenger cars, one work car, one water sprinkler, and one freight car. The line has been maintained in fair condition. Reports show 7 persons killed and 308 injured during 1911.

#### MANILA SUBURBAN RAILWAYS CO.

This is an extension of the Manila Electric Railroad & Light Co., consisting of 11.6 kilometers of main line and sidings from Santa Ana Junction to the town of Pasig. No construction work was performed during the year.

#### *Operation.*

	Fiscal year ending June 30, 1911.	Calendar year 1911.
Operating revenue.....	P251,563.03	P315,414.83
Operating expenses.....	P116,348.18	P135,460.16
Operating income.....	P135,214.85	P184,953.63
Percentage of operating expenses to gross revenue.....	46.2	41.0
Total pay passengers carried.....	4,073,730	3,996,621

The equipment of this line consisted of six passenger cars, three freight cars and four trailers. The line has been maintained in fair condition. Reports are received of one person killed and twenty injured during the calendar year 1911.

#### DAET TRAMWAY CO.

This is a line 7.24 kilometers long between the towns of Daet and Mercedes in the Province of Ambos Camarines. No report has been received from the company since 1911.

#### TARLAC RAILWAY CO.

This line, 20.58 kilometers in length between the towns of Paniqui and Camiling in the Province of Tarlac, was not in operation during the year, and no report has been rendered by the Company.

#### LEGISLATION.

In Act No. 2083, passed by the Philippine Legislature on December 21, 1911, it was provided that 25 per cent of the "gold standard fund" might be loaned under certain conditions to the Manila Railroad Co. to complete certain sections of railroad, and on January 22, 1912, a contract was entered into between the Government of the Philippine Islands and the Manila Railroad Co., defining the sections on which the loans would be used, the approximate amount to be loaned thereon, the time for completion, and other particulars required by the law. To June 30, 1912, the total amount loaned under this authority was P200,000. On that date 2,240 men were employed on gold-fund loan sections of line, 2,040 of whom were engaged on the Baguio line.

Act No. 2096, passed on January 13, 1912, fixed the apportionment between the insular government, the province or provinces, and the municipality or municipalities within which the business is carried on, of the tax paid by the grantees of railroad franchises.

Act No. 2100 amended sections 82, 83, 85, 88 and 93 of Act No. 1459 "the corporation law" with reference to the approval of plans, crossing of public highways, authorization for the opening of new lines, crossing of the roadway and right-of-way of one railroad corporation by other authorized lines of railroad and the speed of locomotives or other motors or trains operated over rail lines within the limits of cities and through centers of population of municipalities.

#### COST.

The net expenses of the office of the supervising railway expert chargeable to government funds during the fiscal year amounted to ₱13,275.63.

#### OFFICE OF THE CONSULTING ARCHITECT.

##### PERSONNEL.

Assistant Architect Louis E. Marie was acting consulting architect from the beginning of the fiscal year to October 16, 1911, on which date the consulting architect, Mr. W. E. Parsons, returned to duty from a leave spent in the United States and Europe. Until June 17, 1912, the officers and employees in the office of the consulting architect numbered 30. On that date the personnel was reduced to 25 by the transfer of the structural engineer and 4 building inspectors to the bureau of public works.

##### WORK PERFORMED.

The architectural designing of 104 projects, representing an aggregate estimated construction cost of ₱12,045,541.27, was handled during the year. Of these, the plans for 43 projects, with an aggregate estimated cost of ₱1,352,012.27, were completed and accepted, and 61 are in course of preparation, preliminary plans in most instances having been prepared and submitted for approval. These figures do not cover services rendered the city of Manila in the location and treatment of streets and parks, including the Cavite Boulevard and the development of the port district, nor plans for the development of Baguio, Cebu, and other cities.

Of the 43 projects for which plans were completed, 33 contemplated reenforced concrete construction costing ₱1,171,890.27, 6 provided for native hardwood construction costing ₱173,318, and 4, all of which were for alterations or additions to existing structures, called for ironwork costing ₱6,804.

The average cost of plans and specifications prepared in the office of the consulting architect has been 2 per cent of the estimated total cost of the projects.

##### COMPLETED PLANS.

The projects for which plans have been completed include the construction of University Hall for the University of the Philippines at Manila, ₱250,000; the sales agency building in the port district at Manila, ₱60,000; lumber sheds for the bureau of supply, ₱147,840; a communicable disease ward at San Lazaro Hospital, ₱40,000; public school in the district of Malate, city of Manila, ₱90,016; provincial building, ₱81,225; prison, ₱52,215; storehouse, ₱10,277; and schoolhouse ₱16,210, all at Cabanatuan, Nueva Ecija; and various offices, cottages, and barracks at Baguio, ₱116,288.

**PENDING PLANS.**

The projects, plans for which were under consideration and in course of preparation at the close of the year, include the new capitol group, Manila, ₱6,113,605.80; new customhouse, Manila, ₱700,000; new bureau of printing, Manila, ₱285,000; school of arts and trades, Manila, ₱250,000; contagious disease ward, Philippine General Hospital, ₱149,917; provincial buildings for Pangasinan, Cebu, Leyte, and Samar, ₱235,000, ₱200,000, ₱125,000, and ₱125,000, respectively; and the Governor General's official residence at Baguio, ₱150,000.

**COMPLETED STRUCTURES.**

The more important structures completed were the Philippine Normal School at the corner of Taft Avenue and Calle Ayala, the service building at the Philippine General Hospital, an addition to the bureau of science, a home for doctors and nurses at San Lazaro Hospital, a provincial building at Capiz, an addition to the provincial building at Iloilo, a provincial jail at Iloilo, and the Southern Islands Hospital at Cebu. Seventy-two barrio schools were constructed from the standard schoolhouse plans approved by the consulting architect at a cost of ₱580,497.99.

**AQUARIUM, MANILA.**

The construction of an aquarium for the city of Manila, under the supervision of and in accordance with plans prepared by the consulting architect, was commenced on January 5, 1911. The site selected is the detached bastion near the Palacio entrance to the walled city, in close proximity to Government Center, the port district, the new luneta, the Manila Hotel, and a number of clubs. The aquarium consists of a wide corridor built into the inner slope of the bastion, extending parallel to its outer walls. The tanks, 25 in number, extend along the inner side of the corridor. In addition to the 25 tanks, which are each 1 meter high and 2 meters wide, there are 3 large pools for sharks and crocodiles. Sufficient space has been left between the present corridor and the bastion walls to provide for an additional corridor with tanks, thus doubling the capacity of the aquarium, should this be desired at some future time.

The space in the center of the bastion not necessary for the aquarium proper has been appropriately treated with tropical plants and paths.

It is expected that the aquarium will be ready for operation in November, 1912.

**THE CAPITOL GROUP.**

A set of preliminary plans of the entire capitol group, with special plans and sections of the capitol building proper, was submitted by the capitol committee to the Legislature for its consideration on February 3, 1912. A report on the architectural conditions and estimates of cost accompanied the plans.

The style adopted for the group is Roman classic, and all the buildings are intended to be surrounded with double walls in the form of colonnades, to serve as a protection from the sun and storms.

The construction throughout is proposed to be of incombustible materials, designed in such a way as to be as nearly earthquake proof

as modern engineering science can devise. Where wood must necessarily be used—as in floors, doors, and windows—it will be of selected Philippine species.

The grand total of the estimate for the entire group, including the cost of general construction, plumbing, lighting, plans and specifications, and supervision is ₱6,113,605.80.

For various reasons the Legislature adjourned without taking definite action on these plans and estimates, and since that time work on the plans has steadily continued. The drawings have been developed on a larger scale and architectural and structural details are being worked out.

Subject to the approval of the general layout by the Legislature, the plans now being prepared will serve as working drawings. Any portion of the project may be commenced immediately upon the appropriation of funds for the work, the design being such that construction may be carried out in sections.

#### IMPROVEMENT OF THE CITY OF MANILA.

During the year the grading of the city moats, forming sunken panels of greensward, has continued as fast as funds have become available, and the area between the Legaspi Monument and the Calle Victoria entrance to the walled city has been completed.

This space, with the exception of certain corners where appropriate trees and shrubs are to be planted, is available for baseball, football, and other athletic sports, and has already demonstrated its popularity as a playground.

The new capitol layout includes plans for the treatment of the luneta extension with drives, paths, and public gardens, which are being carried out as fast as the soil becomes suitable for planting.

#### IMPROVEMENT OF THE CITY OF CEBU.

In March, 1912, the consulting architect, at the invitation of the Governor General, visited the city of Cebu and made a study of general conditions preparatory to making a plan for its future development and beautification. Three preliminary schemes, showing as many possible locations for a provincial government center, were prepared and submitted. One of these has been tentatively adopted, subject to modification in some details.

#### COST.

The total cost of the office of the consulting architect for the year, including salaries and wages and all miscellaneous expenses, was ₱92,761.01, a reduction of ₱5,637.26 as compared with the previous fiscal year.

#### CORPORATIONS.

In a previous report attention was called to the increasing importance of an efficient supervision of the numerous corporations licensed to transact business in the Philippine Islands, and we have to report that some progress has been made toward maintaining a closer check on the status of corporations, both domestic and foreign.

By a ruling of the undersigned, it has been held that foreign insurance corporations must comply with the law pertaining to domestic

insurance corporations in so far as it relates to the amount of their capital stock paid in. Under this ruling no foreign insurance corporation which has not of its capital stock actually paid in an amount equal to the amount of paid-in capital required of domestic insurance corporations is licensed to transact business in the Philippine Islands. The foreign insurance corporations engaged in business under licenses issued prior to this ruling were given until January 1, 1912, to comply with the same, or in lieu thereof to deposit with the insular treasurer cash or approved securities to the amount of ₱100,000 for the benefit of Philippine policy holders. Most of the companies not already in conformity with the ruling took immediate steps to meet it, and the others have made deposits of cash or securities in the insular treasury.

As soon as possible a general insurance law should be enacted by the Legislature, but the subject should be approached with great care and full consideration given to local conditions.

There were licensed to transact business in the Philippine Islands on June 30, 1912, 242 foreign and 500 domestic corporations, of which 100 were nonstock, and 34 religious. During the fiscal year 1912, 250 documents, consisting of articles and amended articles of incorporation, certificates of increase of capital stock, by-laws and amended by-laws, certificates of changes in name, etc., were registered and filed in the division of archives, patents, copyrights, and trade-marks of the executive bureau. The total amount of fees collected for the filing of these documents was ₱6,449. There were authorized and licensed to transact business 144 new corporations, of which 21 were foreign and 123 domestic, 24 of the latter being nonstock corporations.

Amendments have been made to the corporation law, Act No. 1459, by Act No. 2092, amending sections 174 and 182; Act No. 2100, amending sections 82, 83, 85, 88, and 93; and Act No. 2135, amending sections 8 and 17. In the last-named act a scale of fees was provided to be collected for the filing of articles of incorporation and of certificates of increase of capital stock, which has been responsible in great measure for the increased receipts of the division of archives.

#### MISCELLANEOUS.

##### MANILA PORT DISTRICT.

By executive order No. 69, series of 1910, the administrative direction of affairs pertaining to the port district to the point where the improvements fall by operation of law under the jurisdiction of the city of Manila, was vested in the secretary of commerce and police. An administrative order was soon issued regulating the character of structures which would be permitted in the district and limiting sawmills, lumber yards, and manufactures involving the use of inflammable materials to a guarded portion of the same.

The development of this district is proceeding as rapidly as conditions will permit. Of the 88 blocks in the port district, on June 30, 1912, final leases had been executed for 5, a bonus had been paid, and leases were pending for 17, 7 had been reserved for the insular government, 5 had been reserved for the United States Army, 9 had been temporarily reserved for the United States Army, and 2 had been reserved for the United States Marine Corps.

**PUBLICITY WORK.**

By direction of the Governor General, the secretary of commerce and police has been placed in general charge of such publicity work for the islands as it was thought advisable that the government undertake. Until recently no funds were available for this work and little could be done.

Act No. 2058, however, appropriated ₱50,000, expendable only in connection with an equal amount contributed by private persons or firms, for advertising Philippine products and interests in the United States. The Manila Merchants' Association has provided a means for contributing the second ₱50,000, and the combined fund is disbursed by the insular treasurer with the prior approval of the Governor General, after the recommendations of a joint committee of representatives of the government and Merchants' Association have been passed on by the undersigned.

A high-class guide and hand book of the islands, prepared under the direction of this office and received from the printer about January 1, 1912, has been given very general distribution throughout the Far East and the United States; pamphlets and publicity slips are being mailed out by the thousand; Philippine folders and photographs are placed on all Pacific steamers and in hotels along the Chinese and Japanese coasts; a capable publicity man is conducting a vigorous lecture campaign in the United States, and cinematograph films illustrative of the industries and scenic spots in the islands are being prepared for distribution.

**PHILIPPINE EXPOSITION.**

The Legislature at its 1910-11 session, by Act No. 2023, provided for the holding of an industrial exposition in Manila during 1911 or 1912 in the discretion of the board of directors, of which the secretary of commerce and police was made president. Immediately after the passage of the law the board met and organized and decided to open the exposition on February 3, 1912.

Although the amount of money appropriated was inadequate to meet all the demands made upon the board, with the assistance of the provinces and public-spirited individuals a reasonably complete and very successful exhibition of the products, arts, and industries of the islands was made. The holding of the exposition in connection with the Philippine carnival was very advantageous, as each increased the attendance of the other. The provincial governments displayed the greatest interest and willingness to help, and made such appropriations for that purpose as were justified by their finances.

It is unfortunate that the appropriation was made for but one year. The success of the exposition of 1912 unquestionably justifies the appropriation of public moneys for a continuance of such a display annually in the interest of the commerce of the islands, and it is earnestly recommended that the Legislature determine what amount of money can reasonably be appropriated for the purpose and provide a standing appropriation of that amount. The board will then be able to arrange for permanent grounds and buildings.

## WIRELESS TELEGRAPH BOARD.

The question of interisland communication by means of wireless telegraphy has occupied the attention of insular authorities from the early period of American occupation. A number of investigations into the matter have been made, much interdepartmental correspondence has been had on the subject, and in 1906 the Governor General by proclamation withdrew certain lands from sale or settlement for naval wireless sites.

In February, 1910, the matter was brought to an issue through a request of the Navy Department that the President issue an Executive order setting aside the lands which had been withdrawn from sale and settlement by the Governor General as naval reservations for wireless stations, and on April 30, 1910, the President appointed a board of three, representing the Army and Navy of the United States and the insular government, of which board the undersigned was chairman, "to study and make recommendations relating to the construction, operation, maintenance, and management of a system of wireless telegraphy for the Philippine Islands, and as to the relations of the Army, the Navy, and the government of the Philippine Islands and the commercial community to it."

The board thus created has forwarded its report to the Secretary of War. As that report has been printed and is available as a separate complete document, no recapitulation of it is made. It was reviewed and approved by a second board in Washington and finally presented to Congress by the President with his recommendation that the required appropriation for installing a complete wireless system in the islands be provided. To date Congress has not appropriated funds for this purpose, although the entire sum to meet the insular government apportionment of the expense has been made available.

Very respectfully,

CHARLES B. ELLIOTT,  
*Secretary of Commerce and Police.*

To the PHILIPPINE COMMISSION,  
*Manila, P. I.*





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**REPORT OF THE SECRETARY OF  
FINANCE AND JUSTICE.**

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## REPORT OF THE SECRETARY OF FINANCE AND JUSTICE.

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DEPARTMENT OF FINANCE AND JUSTICE,  
*Manila, September 26, 1912.*

GENTLEMEN: I have the honor to submit for your consideration the report of the department of finance and justice covering the fiscal year ending June 30, 1912.

### JUDICIARY.

#### SUPREME COURT.

The increase in the business of the supreme court noted the previous year continued in greater proportion during the fiscal year 1912.

There were filed 441 civil and 476 criminal cases, as against 418 and 420, respectively, during the previous year, an increase of 79 cases. More cases were disposed of by the court than during the previous year. There were decided 354 civil and 286 criminal cases, a total of 640, as against 244 civil and 343 criminal cases, a total of 587, for the fiscal year 1911. One hundred and forty-one cases were otherwise disposed of, of which 75 were civil and 66 were criminal, as compared with 117, 50 civil and 67 criminal, for the previous fiscal year.

At the close of the year there were 1,004 cases pending, of which 504 were civil and 500 were criminal, as compared with 868 pending at the beginning of the year, of which 492 were civil and 376 were criminal. Of the cases pending at the end of the year, 18 were submitted, but no decision rendered. There were 676 not ready for hearing on account of briefs not being filed; and 310 ready for hearing were placed on the calendar for July, 1912, an increase of 149 as compared with the number of cases on the calendar at the beginning of the year.

One hundred and thirty-nine candidates for admission to the bar were examined during the year, as against 158 for the preceding year. Eighty candidates passed the examination, as against 61 for the previous year.

Volumes XVII, XVIII, XIX, and XX of the Philippine Reports have been completed and published in English and Spanish during the year. This brings the reports down to December 2, 1911.

The total of the fines, fees, and costs collected by the court during the year was ₱11,071.06, as compared with ₱10,859.96 for the preceding fiscal year.

#### COURT OF FIRST INSTANCE OF MANILA.

There were pending at the beginning of the fiscal year 1912, 1,118 civil cases. During the year 937 were filed and 798 disposed of, as compared with 814 filed and 688 disposed of during the fiscal year 1911. There remained pending at the close of the year 1,257 civil

cases. Fifty-nine criminal cases were pending at the beginning of the year. During the year 1,397 were filed and 1,388 disposed of, as against 1,125 filed and 1,137 disposed of during the previous fiscal year. There remained pending at the close of the year 68 criminal cases.

There were 26 customs appeal cases pending at the beginning of the year, and during the year 22 were filed and 44 disposed of, leaving 4 cases pending at the end of the year.

The above shows an increase in the number of cases filed, both civil and criminal, and a larger number pending at the close of the year than at the close of the preceding year, notwithstanding that there were more cases disposed of than during the fiscal year 1911. The increase in the number of criminal cases pending is not very considerable, being only 9. The increase in the number of civil cases pending is more noticeable, amounting to 139. In order to remedy this condition, it is the intention of the undersigned to assign a judge at large to the court of first instance of Manila and have him remain on duty there until the close of the year.

The total collections made by the court of first instance of Manila amounted to ₱66,630.57.

#### COURTS OF FIRST INSTANCE IN THE PROVINCES.

During the year there were filed, including probate cases, 3,881 civil cases, as compared with 3,486 during the preceding year, an increase of 395. Three thousand three hundred and thirty-four cases were disposed of, as compared with 3,643 during the preceding year, a decrease of 309 in the number of cases disposed of. At the close of the year there were pending 2,824 ordinary civil and 2,086 probate cases, a total of 4,910, as compared with 2,351 ordinary civil and 2,012 probate cases, a total 4,363, pending at the beginning of the year, an increase of 547 in the number of cases pending.

There were 7,372 criminal cases filed during the year, as compared with 7,081 during the preceding year, an increase of 291. Six thousand seven hundred and sixty-four criminal cases were disposed of, as against 7,135 during the preceding year, a decrease of 371. The number of criminal cases pending at the close of the year was 2,348, as compared with 1,740 pending at the beginning of the year, an increase of 608 cases.

The above figures show that the increase in the work of the courts noted during the past years has progressively continued during the year under consideration. The large amount of work in the courts of first instance does not permit the judges to give to probate cases the care and attention which they deserve. The delay in disposing of these cases increases year by year. In view of their importance, not only as to the amount of money involved, which in the 10 years from 1901 to 1910 amounted to ₱74,605,705, but also with respect to the desirability of partitioning estates as soon as possible and having the property of minor heirs faithfully administered, it is highly advisable from every point of view that the situation be remedied.

It is undoubtedly true that other causes, aside from the lack of time on the part of the judges, contribute to this delay, such as, for example, the difficulty in appointing administrators who can give sufficient bond, the negligence of the administrators in making inventories and filing accounts, and the apathy of heirs in regard to having estates partitioned, frequently preferring, in view of the nature of the property,

to have the same remain undivided. Nevertheless, these contributing causes would be much lessened if the judges could give more time and attention to probate cases.

It is also true that in the settlement of estates of small value the formalities required by the Code of Civil Procedure cause delay and expense which is wholly unjustifiable. The law should be amended so as to permit the judge in his discretion to omit the appointment of appraisers and the publication in the newspapers when the amount of the estate is small, and there is no danger of anyone's rights being prejudiced by such omissions.

The above conditions demonstrate the need for more judges.

During the year orders were issued for holding special terms at other than the regular places for holding court as follows:

Date of order.	Judge.	Where held.
1911.		
July 10.....	Judge of the district.....	Tigson, Ambos Camarines.
18.....	do.....	Mambajao, Misamis.
18.....	do.....	Oroquieta, Misamis.
18.....	do.....	Cabadbaran, Agusan.
21.....	do.....	Antimonan, Tayabas.
Aug. 29.....	do.....	Cuyapo, Nueva Ecija.
Sept. 26.....	do.....	Oroquieta, Misamis.
Oct. 13.....	Herbert D. Gale, judge at large.....	Malaybalay, Agusan.
Nov. 20.....	Judge of the district.....	Banase, Mountain.
20.....	do.....	Lubugan, Mountain.
20.....	do.....	Cervantes, Mountain.
20.....	do.....	Tagudin, Mountain.
Dec. 6.....	do.....	Aparri, Cagayan.
9.....	Isidro Paredes, judge at large.....	San Pablo, Laguna.
27.....	Judge of the district.....	Ormoc, Leyte.
1912.		
Jan. 12.....	Herbert D. Gale, judge at large.....	Zaragoza, Nueva Ecija.
16.....	Judge of the district.....	Tanculan, Agusan.
16.....	do.....	Misamis, Misamis.
16.....	do.....	Oroquieta, Misamis.
24.....	Herbert D. Gale, judge at large.....	San Jose, Nueva Ecija.
26.....	Judge of the district.....	Malabang, Moro.
Feb. 24.....	Herbert D. Gale, judge at large.....	Cuyapo, Nueva Ecija.
24.....	Judge of the district.....	Virac, Albay.
Mar. 25.....	do.....	Dact, Ambos Camarines.
25.....	do.....	Tigson, Ambos Camarines.
Apr. 30.....	do.....	Mambajao, Misamis.
May 15.....	do.....	Tanculan, Agusan.
15.....	do.....	Oroquieta, Misamis.
June 3.....	Chas. S. Lobingier, judge, Manila district.....	Banase, Mountain.
3.....	do.....	Lubugan, Mountain.
3.....	do.....	Cervantes, Mountain.
3.....	do.....	Tagudin, Mountain.

In addition to the above, orders were issued directing judges at large to act in various districts, as follows:

Date of order.	Judge.	District to which assigned.
1911.		
Sept. 26.....	Isidro Paredes.....	Sixth.
Sept. 26.....	Higinio Benites.....	Fifth.
Oct. 5.....	do.....	Sixth.
Oct. 12.....	Herbert D. Gale.....	Fourth.
Oct. 12.....	do.....	Thirteenth.
Do.....	Higinio Benites.....	Seventh.
Nov. 11.....	George N. Hurd.....	Thirteenth.
Dec. 15.....	Herbert D. Gale.....	Fourth.
1912.		
Jan. 24.....	George N. Hurd.....	Eleventh.
Jan. 27.....	Isidro Paredes.....	Third.
May 7.....	do.....	Sixth.
May 15.....	George N. Hurd.....	Eleventh.
June 26.....	Higinio Benites.....	Ninth.

Orders were also issued directing regular judges to act in other districts, as follows:

Date of order.	Judge	Regular district.	District to which assigned.
1911.			
July 1	José C. Abreu.....	Sixteenth.....	Twelfth.
31	Richard Campbell.....	Mountain.....	Sixth.
1912.			
Feb. 14	John S. Powell.....	Ninth.....	Fifteenth.
Apr. 19	José C. Abreu.....	Sixteenth.....	Do.
30	Chas. S. Lobingier.....	Manila.....	Mountain.
May 34	José C. Abreu.....	Sixteenth.....	Fifth.
27	Simplicio del Rosario.....	Manila.....	Seventh.
29	Mariano Cui.....	Seventh.....	Sixteenth.

The collections made by the courts of first instance in the provinces during the fiscal year amounted to ₱136,332.37, as compared with ₱158,627.94 in 1911.

#### COURT OF LAND REGISTRATION.

During the year 774 applications were filed, this being 209 less than during the preceding year. Of these applications, 10 were filed by the insular government, 10 by provincial governments, 156 by municipal governments, and 3 by the city of Manila, a total of 179. The greater number of applications presented during the fiscal year 1911 was to a great extent a result of the reservation proceedings. Only 363 applications were presented during that year which may unconditionally be termed voluntary proceedings on the part of individuals, while during the year 1912 the number of such voluntary applications presented shows a material increase, there being 595 that may be so considered.

The 774 applications filed during the year represent receipts to the amount of ₱47,032.20, and involve property to the value of ₱14,860,440.48, while the 983 cases begun during the preceding year represented receipts to the amount of ₱48,346.54, and property to the value of ₱7,850,548.96, or approximately one-half of the property value of the cases filed during the fiscal year 1912. The proportional increase in receipts and property value involved is due to the tendency to embody in one application a greater number of parcels of land than has heretofore been customary.

The business transacted by the court during the year, and also the status of all cases filed to June 30, 1912, is shown by the following table:

Fiscal year 1912.	Con- firmed.	Denied.	Dis- missed.	Total.
Final disposition made.....	754	20	54	828
Decided, but subject to appeal.....	80	1	6	87
Appealed to supreme court.....	26	3	1	30
Total year's business.....	880	24	61	915
Previous appeals pending.....	46	6	5	57
Prior final disposition made.....	5,934	239	555	6,728
Total business transacted.....	6,810	269	621	7,700
Pending on the dockets.....				543
Total cases June 30, 1912.....				8,243

Of the 8,248 cases filed from the organization of the court to June 30, 1912, 2,226 involved property in the city of Manila to the value of ₱47,543,391.35; and 6,022 applications represented property in the provinces of the value of ₱53,143,139.68, a total value of property involved of ₱100,686,531.03.

During the year final decrees were issued in 1,252 cases, there being 1,434 decrees, involving 2,575 parcels, with a total area of 470,479,164 square meters. The total number of cases in which decrees have been issued by the court from its organization to June 30, 1912, was 6,357, involving parcels of land with a total area of 3,391,711,869 square meters.

The total number of cases in which decrees were issued does not agree with the number of cases finally disposed of, as shown by the preceding table, due to the fact that corrections in plans and surveys are frequently ordered in the final decision, and for this reason there are many cases decided in which decrees were not issued, and decrees may be issued one year corresponding to cases decided the preceding year.

In the report of this department for the fiscal year 1911, special attention was invited to the result of the proceedings in Case No. 6692, entitled "The Director of Lands v. Numeriano Abalos et al.," a case brought under the provisions of section 61 of the public land act, and which was to all intents and purposes a cadastral project, clearly showing the advantage of the cadastral system of registration. A bill providing for such system of registration was passed by the Philippine Commission in the last two sessions of the Legislature, but failed to become a law. The Commission, using its legislative power over the territory occupied by non-Christian tribes, passed act No. 2075, entitled "An act providing certain special proceedings for the settlement and adjudication of land titles in the Moro Province, the Mountain Province, the Province of Agusan, and the Province of Nueva Vizcaya." This act is substantially the same as the bill which was passed by the Commission and submitted to the Assembly for concurrence affecting the territory under the jurisdiction of the Philippine Legislature.

The first case brought under the above-mentioned act was case No. 7880. I extract the following from the report made thereon by Associate Judge Jesse George, of the court of land registration:

The case as originally published was based on the cadastral survey of the town site of Zamboanga, made by the bureau of lands in 1909, including the entire town of Zamboanga and an extensive area of rich, cultivated agricultural land surrounding it, amounting in all to over 2,000 hectares. The original survey showed some 1,800 parcels, but owing to the sales, partitions, and subdivisions made during the three years since the survey, the corrected plans showed 2,088 parcels, of the value of almost ₱2,000,000. The trial of the case was begun on January 22, on which date the various parcels were assigned for hearing in the order of their cadastral numbers, an average of 50 parcels being assigned for each day. The hearing was finished on March 30, 2 months and 10 days, on 2,088 parcels of land, or as many as were decreed by the court in the first four years of its existence. Most of the lots registered were small parcels, the homes and holdings of poor people who have been unable to have their lands registered under Act No. 496 because of the expense. Of the whole number of parcels only 820 were of more than ₱500 in value, 1,113 were of ₱200 or less, and 200 parcels were of less than ₱50 in value. The costs have been apportioned among the lots according to values, in some cases running as low as ₱2.50, including the certificate, to be paid in five equal annual installments. The cost for the most valuable parcel under this apportionment was only ₱16.



The result of the case above referred to fully corroborates the views of the undersigned expressed in his annual report for the fiscal year 1911 as to the advantage of the cadastral system of registration, and is the strongest argument for the passage of an act by the Philippine Legislature similar to Act No. 2075 enacted by the Commission for the non-Christian territory.

#### COST OF MAINTAINING THE JUDICIARY AND CODE COMMITTEE.

The following figures show the cost of maintenance of the judiciary and the code committee for the past fiscal year:

	Judiciary.	Code committee.
Total expenses.....	P965,814.19	P73,142.21
Receipts from operations.....	204,494.06	2.58
Net expenditures.....	761,320.13	73,139.63

#### JUSTICE OF THE PEACE COURTS.

Pursuant to the provisions of Act No. 2041, examinations for justices of the peace have been held in all the provinces, with the exception of the city of Manila, in conformity with the rules and regulations prepared by the attorney general's office, with the approval of the secretary of finance and justice. Fourteen hundred and twenty candidates took the examinations, 1,043 of whom passed. A sufficient number of eligibles to fill the positions of justices of the peace have not been secured in the Provinces of Bohol, Isabela, Misamis, and La Union. This deficiency has, however, been properly provided for by permitting justices of the peace appointed prior to the passage of Act No. 2041 to continue to hold their respective offices until their successors are duly appointed and qualified. It is expected that on January 13, 1913, other examinations for justices of the peace will be held in all the provinces.

During the year 333 justices of the peace and 94 auxiliary justices of the peace were appointed; 6 and 11, respectively, declined appointment; 97 and 138 resigned; 213 and 52 were relieved from office, not having qualified under Act No. 2041; and 5 and 5 died. Charges were brought against 24 justices and 10 auxiliary justices of the peace, of whom 17 and 8, respectively, were suspended pending final decision; 2 and 3 were removed and disqualified; 15 and 6 were removed; 4 justices were required to resign or resignation accepted; 1 and 1, respectively, were reprimanded, disciplined, or suspended; and 2 justices were found not guilty. Of the justices of the peace and auxiliary justices removed, 2 and 1, respectively, were qualified under Act No. 2041, and of the justices of the peace required to resign, 1 had the qualifications prescribed by said act.

At the present time there are 513 justices of the peace and 90 auxiliary justices qualified and holding office under the provisions of Act No. 2041; 103 justices and 354 auxiliary justices not so qualified who have been continued in office, and 13 justices and 37 auxiliary justices who have been given temporary appointments without being qualified under said act.

It has not been possible to secure accurate reports of the work of the justices of the peace, owing doubtless to the many changes in the personnel of the courts consequent upon their reorganization under Act No. 2041. Judging, however, from the reports received and comparing them with those of the preceding year, it appears that the work of the courts has both increased and improved. The larger jurisdiction conferred upon justices of the peace of the capitals of provinces and upon provincial governors acting as justices of the peace, permitting them to hear matters of lesser importance originally cognizable by the court of first instance, has proved to be a great relief to the judges of the courts of first instance.

The total administrative expenses of the justice of the peace courts for the past fiscal year were ₱485,914.67; the income from fees, fines, etc., ₱263,258.55, leaving the net cost of administration ₱222,656.12.

#### BUREAU OF JUSTICE.

The legal work performed by the bureau of justice during the fiscal year, as compared with the previous fiscal year, is shown in condensed form in the following summary:

	1911	1912
Cases in the supreme court in which briefs and arguments were presented.....	252	206
Cases in the supreme court in which that office appeared by motion.....	29	61
Cases in the court of land registration in which that office appeared and opposed registration.....	554	536
Cases in the court of land registration examined but no opposition presented.....	410	604
Cases conducted in the courts of first instance.....	266	118
Written opinions rendered by the attorney general to the Chief Executive, heads of departments, bureau chiefs, and other officials.....	212	225
Applications for loans submitted by the Agricultural Bank for examination of title papers.....	79	170
Mortgages involving loans to the amount of ₱21,303, titles in which were examined....	61	69

The attorney general took charge of and administered the estates of 27 deceased American employees and took preliminary steps pending the appointment of an administrator by the court in 4 estates. There were collected on account of estates administered ₱35,647.92, while the disbursements amounted to ₱31,436.82, leaving a balance on hand June 30, 1912, of ₱4,211.10 to the credit of 21 estates pending settlement.

Some difficulty has been encountered in the past in the embalming and shipping of remains to the United States. During the past year arrangements were effected with the military authorities whereby the remains of deceased government employees are embalmed by the United States Army morgue officials, by whom arrangements are also made for funerals or shipment to the United States, as the case may be. These services are rendered at cost, thereby materially reducing the charges against estates.

The attorney general has called attention to the fact that in some instances the estates of deceased government employees may not have sufficient funds with which to defray the expenses in connection with the disposition of the remains. It is suggested that to meet such contingency a special insolvent estate fund be created by the retention of a small percentage from the assets of all estates in which the net proceeds exceed ₱500, which, with a small original refundable appropriation, could be carried in the insular treasury as

a trust fund. Such arrangement would be entirely equitable in view of the fact that no fees are charged by the attorney general for the administration of the estates of deceased government employees.

The total expense of maintaining the bureau of justice for the year was ₱144,470, the receipts from operation ₱1,225, leaving the net expenditures ₱143,245.

#### PROSECUTION OF CRIMES AND THE WORK OF THE PROVINCIAL FISCALS.

The question of the administration of justice in criminal matters has attracted the attention of the public, and it has become a topic of general discussion during the last few months. The consensus of opinion has been favorable to the work done by the provincial fiscals. Attention has, however, been drawn to the fact that the ratio of convictions is low and that there are a great number of acquittals and dismissals due to the inefficiency of the prosecuting officers. Statistics covering all criminal cases during the quinquennium 1906-1911 show the yearly ratio of convictions during said period to be 46 per cent as the minimum, 81 per cent as the maximum, with a general average of 65 per cent; the yearly ratio of acquittals to be 7 per cent as the minimum, 26 per cent as the maximum, with a general average of 17 per cent; and the yearly ratio of dismissals to be 2 per cent as the minimum, 40 per cent as the maximum, and 18 per cent as the general average. Excluding the number of cases dismissed, which in reality were never tried, the ratio of convictions is 69 per cent as the minimum, 91 per cent as the maximum, with a general average of 80 per cent; and that of acquittals 9 per cent as the minimum, 31 per cent as the maximum, and 20 per cent as the general average.

If we take into consideration the circumstances upon which the successful prosecution of a crime may depend, the above results may be considered very satisfactory.

The manner in which crimes are investigated in the first place must be taken into consideration. It is not possible for the provincial fiscal to go to each and every one of the municipalities of the province, particularly when court is in session, for the purpose of personally conducting preliminary investigations. The law imposes upon justices of the peace the duty of conducting preliminary investigations, although the provincial fiscal in important cases usually intervenes. Upon conclusion of the preliminary investigation the justice of the peace forwards to the courts of first instance a summary of the testimony of the witnesses. The provincial fiscal must in the majority of cases rely on such summary, which often does not faithfully show the testimony of the witnesses; and in many cases, although the summary may be reliable, the witnesses change their testimony when examined by the fiscal before the trial or when put upon the witness stand. This naturally increases the number of dismissals and acquittals without any fault whatever on the part of the fiscal. The number of dismissals is also increased by the fact that in accordance with General Orders, No. 58, and Act No. 194, a justice of the peace is required to bind the accused over to the court of first instance whenever he finds reasonable grounds to believe that the crime was committed by him, while the court of first instance under the

law can not convict the accused unless his guilt is shown beyond a reasonable doubt. Differences of opinion between the provincial fiscal and the judge of the court of first instance as to the interpretation of penal statutes are also responsible in not a few cases for unsuccessful prosecutions. The unwillingness of witnesses for the prosecution to appear, in order to avoid making enemies and because the law makes no provision for per diems or traveling expenses, the ignorance of witnesses and the fact that they nearly always testify through an interpreter, are also factors which work against the securing of convictions, as is also the disloyalty of the offended party and his witnesses, which is sometimes manifested at the most critical moments during the progress of the trial. Should the offended party effect a compromise and the prosecution not consent to the dismissal of the case, the result is generally unfavorable to the prosecution. Any testimony given by the offended party and his witnesses in the preliminary investigation which is contrary to that with which he tries to favor the accused can only be used at best to impeach the witness, and the court invariably follows the well-settled doctrine that any reasonable doubt should be resolved in favor of the accused.

The fiscal files his complaint, having heard only the evidence for the prosecution and without having had an opportunity to examine the evidence for the defense. He is required to file a complaint if from his investigation it appears that there is evidence sufficient to procure a conviction. On the other hand, the judge decides the case after having heard the evidence for the defense, which may overcome the evidence for the prosecution, and only finds against the accused when his guilt is clearly proved. The presumption of innocence is always in favor of the accused. Due to this, even where the fiscal is most zealous and able, it is not always possible to obtain convictions.

The Code of Criminal Procedure also contains many precepts which favor the defendant, such as the one providing that the court may at any time before judgment upon a plea of guilty permit it to be withdrawn and a plea of not guilty substituted. The law also establishes many causes for a dismissal, as, for instance, the death of the accused pending trial, the marriage of the accused to the offended party in case of abduction, seduction or rape, the prescription of the crime, the discharge of the accused for the purpose of being used as a witness for the prosecution, former jeopardy, etc. Dismissals due to these causes have no bearing on the ability of the prosecuting officer.

The former secretary of finance and justice, the Hon. Henry C. Ide, and the Hon. James F. Smith, acting secretary of finance and justice, in their annual reports commended the work of the provincial fiscals, considering it on the whole very satisfactory. I take pleasure in ratifying the remarks of my predecessors, and desire to add that with the experience gained by the fiscals during the past year it may be said that they have become more familiar with American criminal procedure and that their work is becoming more and more efficient. With few exceptions they are able to speak and write the English language, and those who can not do so are at least able to read English textbooks intelligently.

## BUREAU OF THE TREASURY.

## PERSONNEL.

On April 10, 1912, Mr. Jeremiah L. Manning, assistant insular treasurer, was appointed insular treasurer, vice John L. Barrett, resigned. On the same date Mr. Robert C. Baldwin, disbursing officer of the municipal board of the city of Manila, was appointed assistant insular treasurer.

## FINANCIAL STATEMENT.

The following statement shows the balances on hand at the close of the fiscal year 1911, the receipts, withdrawals, and currency exchanges during the fiscal year under consideration, and the balances on hand at the close of business on June 30, 1912:

## General funds:

Balance on hand at close of business June 30, 1911 .....	₱31,935,585.68
Receipts for fiscal year, account of—	
Customs.....	₱7,216,489.67
Internal revenue.....	12,933,308.97
Miscellaneous.....	4,489,990.75
City of Manila.....	3,461,022.82
Repayments.....	9,764,310.24
Gold standard fund.....	1,268,603.16
Trust funds.....	18,091,069.80
Currency exchanges.....	63,529,220.54
	<hr/>
	120,754,015.95
Total.....	<hr/>
	152,689,601.63
Withdrawals for fiscal year, account of—	
Check vouchers paid.....	₱60,746,166.61
Currency exchanges.....	63,529,220.54
	<hr/>
	124,275,387.15

Balance on hand June 30, 1912.....	28,414,214.48
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## Depository accounts:

Balance on hand at close of business June 30, 1911 .....	₱10,357,676.95
Deposits during the fiscal year.....	97,990,803.99

Total.....	108,348,480.94
Withdrawals during fiscal year.....	97,087,304.39

Balance on hand June 30, 1912.....	11,261,176.55
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## Certificate redemption fund:

Balance on hand at close of business June 30, 1911 .....	₱27,339,909.50
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Certificates issued during fiscal year.....	₱16,285,000.00
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Certificates retired during fiscal year.....	14,798,578.50
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Net amount issued during fiscal year.....	1,486,421.50
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Balance in fund at close of business June 30, 1912.....	28,826,331.00
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Total of funds for which insular treasurer was accountable at close of business on June 30, 1912.....	68,501,722.03
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This balance was distributed as follows:

	United States currency.	Philippine currency.
In treasury vaults.....	\$2,651,683.41	P34,423,897.22
In treasury vaults, certified checks on local banks.....		821,048.64
On deposit with local banks on open account.....		6,157,290.83
Time deposits with local banks.....		1,017,250.60
On deposit with authorized depositories in the United States.....	10,380,433.96	
Total.....	13,041,117.37	42,419,487.29
Grand total.....		26,082,284.74
		68,501,722.08

The "general funds" balance of P28,414,214.48 in the foregoing statement includes the balances of various trust funds and is made up as follows:

Gold standard fund.....	P15,745,022.67
Friar lands bonds sinking fund.....	444,949.32
Manila sewer and waterworks construction bonds fund.....	306,385.27
Manila sewer and waterworks construction bonds sinking fund.....	198,874.50
Money order funds.....	830,357.98
Constabulary pension and retirement fund.....	48,307.26
Assurance fund, Act No. 496.....	30,105.43
Insurance fund, Act No. 1728.....	15,424.97
Fidelity bond premium fund.....	122,684.33
Public works and permanent improvement bonds sinking fund.....	58,807.01
Postal Savings Bank funds.....	519,035.21
Insurance fund, city of Manila.....	2,842.14
General fund.....	<sup>1</sup> 10,091,418.39
Total.....	28,414,214.48

The "depository balance" of P11,261,176.55 in the same statement is made up of the following accounts:

Agricultural Bank.....	P142,205.15
American Bank in liquidation.....	5,586.21
Cavite electric light franchise, section 2, Act No. 667.....	1,000.00
Fourth of July fund.....	1,068.78
Insular disbursing officers.....	3,485,820.68
Memorial monument fund, Act No. 1840.....	255.52
Treasurer of the United States.....	2,435,420.22
Trust funds, section 11, Act No. 1510.....	56,884.00
United States disbursing officers.....	5,082,510.20
Marinos Mercantes in liquidation.....	289.23
Overage account.....	186.56
Guarantee deposit of Manila Gas Co., Act No. 2039.....	50,000.00
Total.....	11,261,176.55

#### INTEREST COLLECTED.

The total amount of interest received during the year on government funds deposited in the United States and in the Philippine Islands was P918,069.25, which was P20,205.46 less than that received during the preceding fiscal year. This falling off is accounted for by the fact that during the fiscal year under consideration no deposits have drawn interest at a higher rate than 3 per cent per

<sup>1</sup> Includes Rizal monument fund, outstanding liabilities, and such other funds as are not accounted for separately on the books of this bureau.

annum, while during the first eight months of the fiscal year 1911 amounts on fixed deposit, varying from \$3,000,000 to \$11,000,000, drew interest at 3½ per cent, and some small amounts at 4 per cent.

#### FIDELITY BOND PREMIUM FUND.

During the past year shortages were paid amounting to ₱33,466.36, as compared with ₱15,149.31 during the previous year. This fund now amounts to ₱464,525.27, and it is believed that its annual earnings in the near future will be more than sufficient to meet any defalcations likely to occur.

Based on the rates charged by the surety companies prior to the inauguration of the present system on January 1, 1908, the Government would have paid such surety companies during the past four and one-half years over ₱350,000. The total shortages paid during that period have been less than ₱63,000, and the cost of operation less than ₱28,000. These figures forcibly demonstrate the economy of the present system.

On January 1, 1912, the rate of premium charged was reduced from 1 per cent to three-fourths per cent per annum, and on July 1, 1912, the rate was still further reduced to one-half per cent. The total of all bonds in effect January 1, 1912, was ₱8,337,750.

The recommendation made in my report for the fiscal year 1911 regarding the desirability of legislation permitting this fund to bear its own expenses, now paid from the appropriation for the treasury bureau, is renewed.

#### BANKS AND BANKING.

*Agricultural Bank.*—The amount loaned by the bank during the year was a little less than that loaned during the preceding fiscal year, the figures being ₱221,303 and ₱230,450, respectively. The number of applications was 170, and the number of loans made 69, as compared with 123 and 61, respectively, for the previous year. Sixteen loans amounting to ₱44,319 were repaid. No foreclosure proceedings were instituted during the year. The great majority of borrowers are prompt in meeting their interest obligations, although there is at the present time a rather large amount of interest delinquent, ₱5,698.76, principally due to the protracted drought throughout the islands and consequent loss of crops.

At the close of the year there were outstanding loans amounting to ₱655,203. The profit and loss account on June 30, 1912, showed the net profits to be ₱52,950.87.

On October 1, 1911, the rate of interest charged the borrowers was reduced from 10 to 8 per cent on loans secured by mortgage on property registered under the land registration act.

One agency of the bank was established in 1909, 12 in January, 1912, and 7 in June, 1912, too late to open for business in this fiscal year. At present these agencies are only accepting current accounts, and these solely for the convenience of the local merchants and the public. Only one of the agencies established in January, 1912, has failed to secure depositors. In all other agencies the privileges offered were enthusiastically welcomed. At the end of the present fiscal year the 12 agencies actually doing business had a total deposit balance of ₱92,749.28.

This is the first year in which salaries of the employees of the bank have been paid by the bank. Formerly they were paid out of the regular appropriation for the treasury bureau.

*Private banks.*—A comparative consolidated statement of the resources and liabilities of all the commercial banks in the islands at the close of business on June 30 for the years 1911 and 1912 shows the following:

	1911	1912	Increase.	Decrease.
Total resources.....	P49,115,393.72	P71,771,455.70	P22,656,061.98	.....
Loans and discounts.....	7,415,454.04	11,262,089.79	3,846,585.75	.....
Overdrafts.....	18,189,259.22	23,922,392.39	5,733,103.17	.....
Current accounts.....	14,434,010.49	18,704,471.37	4,270,460.88	.....
Fixed deposits.....	10,349,317.98	10,127,432.50	.....	P221,885.48

*American Bank in liquidation.*—The last of this bank's assets have been converted into cash, a final report rendered to the court, and the receivership will shortly be terminated. Dividends have been declared to the amount of 53 per cent.

#### BOND ISSUES.

During the year authority was given to the Philippine Railway Co. to issue bonds to the amount of \$275,000, and to the Manila Railroad Co. to the amount of \$1,940,000, against completed portions of their lines.

The total issue of the Philippine Railway Co. now amounts to \$8,382,000, and of the Manila Railroad Co. \$4,936,000. The annual liability of the government on account of its guaranty amounts to P1,065,440 Philippine currency.

#### GOLD-STANDARD FUND.

Under Act No. 2083 passed December 8, 1911, the gold-standard fund has a fixed status, namely, 35 per cent of the coinage of the Philippine Islands in circulation or available for circulation, the surplus to be transferred to the general fund. The sum of P3,397,027.65 has been so transferred during the year and made available for appropriation. This act also authorizes the loaning of the investment portion of this fund, which had theretofore been kept on deposit in banks in the United States and in Manila, to provinces and municipalities for public works and permanent improvements, and to the Manila Railroad Co. to complete certain sections of railroad. Under this provision P2,013,700 has been loaned to provinces and municipalities, and P200,000 to the Manila Railroad Co.

The amount of exchange sold on New York during the year was P24,403,118.08, as compared with P27,725,387.60 for the year ending June 30, 1911.

Demand drafts and telegraphic transfers sold during the year by the insular treasurer on provincial treasurers and vice versa amounted to P3,086,128.70, an increase of P512,936.14 over the preceding year.

The net income of the fund for the year on account of the sale of exchange and interest on deposits and loans was P926,877.39, an increase of P10,105.40 over the preceding year. On June 30,



1912, the gold-standard fund amounted to ₱18,271,940.77, being ₱2,345,814.79 less than it was on June 30, 1911. Adding to this balance the surplus of ₱3,397,027.65 which was transferred to the general fund during the year under Act No. 2083, more than makes up for this decrease.

#### CIRCULATION.

From July 1, 1903, to June 30, 1912, the exports of Spanish-Filipino and Mexican coins amounted to pfs. 33,670,234.30. It is estimated that pfs. 350,000 still remain in the islands.

About 90 per cent of the silver currency of the first coinage has been returned and recoined. During the past fiscal year ₱278,000 was withdrawn from circulation and forwarded to the San Francisco Mint for recoinage. It is calculated that ₱2,500,000 of the first coinage are still in circulation in the islands.

The total silver coinage of the present weight and fineness already received from the United States mint amounts to ₱49,202,832.67.

Silver certificates to the amount of ₱28,826,331 were in circulation on June 30, 1912, and ₱13,034,000 in the treasury vaults on the same date. During the year mutilated and worn silver certificates were destroyed to the amount of ₱7,126,578.50.

The insular treasurer has received and issued to the Bank of the Philippine Islands (formerly the Banco Español-Filipino) for circulation notes to the amount of ₱5,327,500.

The total amount of money in circulation in the islands on June 30, 1912, was ₱52,055,892.97, being ₱3,900,305.82 more than it was on the same date in 1911.

#### EXPENSES OF CONDUCTING THE BUREAU.

The total expenditures for the bureau during the fiscal year amounted to ₱114,834.57, as compared with ₱123,104.30 for the preceding fiscal year.

#### BUREAU OF CUSTOMS.

##### GENERAL TRADE CONDITIONS.

Trade conditions, as indicated by the customs statistics for the past year, continue to improve. The total commerce between the islands and other countries during the year reached a total value of \$104,-869,816, an increase of 17 per cent over that of the previous year.

The total trade figures for the past two years are given below:

	Fiscal year 1911.	Fiscal year 1912.	Increase in 1912.
Total imports.....	\$49,833,722	\$54,549,990	\$4,716,268
Total exports.....	39,778,629	50,319,836	10,541,207
Total trade.....	89,612,351	104,869,816	15,257,465

The above table shows a larger increase in exportations than in importations. The most encouraging feature of the growth of exports is the fact that domestic products exported have shown

generally not only a large increase in volume, but a tendency toward improvement in quality, resulting in substantially higher prices.

The balance of trade against the islands was this year \$4,230,144, as compared with \$10,055,093 for the preceding year. The difference, \$5,824,949, may be taken as an indication of the commercial progress made during the year. This unfavorable balance of trade is more apparent than real, as the figures showing the total imports include importations by the United States Army and Navy, the Government of the Philippine Islands and the local railway companies, and also large quantities of supplies brought in by commercial importers under contract with the various departments of the Federal and Philippine Governments, which importations do not constitute a burden upon the resources of the country.

Trade with the United States, both imports and exports, has increased during the year. Forty per cent of the total commerce of the islands the past year was with the United States, imports reaching 38 per cent and exports 43 per cent of the respective totals, as compared with 40, 39, and 42 per cent, respectively, for the previous year. Leaving aside rice importations, the entire increase in the import trade for the year was absorbed by the United States, and in addition 35 per cent of that trade was diverted from other countries.

#### IMPORTS.

All kinds of imported merchandise, except cotton, coal, and live cattle, show an increase in value. Rice ranks first among the imports this year, taking the place of cotton goods, which has long headed the list. The total value of the rice imported was \$10,569,949, while during the preceding year the importations of this commodity were valued at \$6,560,630, an increase of \$4,009,319, to which is largely due the increase in importations, the increase in the value of other imports being \$706,939.

Cotton goods rank second among imported articles. The value of the importations of this commodity dropped from \$10,305,017 in 1911 to \$9,246,595 in 1912. The greatest loss in this trade was sustained by the United Kingdom, importations from that country falling off more than \$1,000,000, or 32 per cent. Importations from the United States and British East Indies slightly increased, while the increase from Japan has been 49 per cent. Among the other countries supplying these goods the loss in trade has been general.

The United States continues at the head of the list of countries sending merchandise to these islands, with importations of \$20,604,155, as compared with \$19,818,841 in 1911. As in the previous fiscal year, next come the French East Indies with importations of \$9,575,741, as compared with \$7,415,881. The United Kingdom takes third place, with importations to the value of \$5,509,773. Japan follows with \$3,234,714, forcing Australasia from fourth to fifth place; then come Germany, China, British East Indies, France, Spain, and Hongkong in the order named.

Notwithstanding the largely increased importations from the United States consequent upon the passage of the tariff act of 1909, importations from all other countries show a steady increase since that year, and exceeded during the year 1912 those of 1911 by nearly \$4,000,000.

Importations from all countries except the United Kingdom, China, and Spain have increased, the most notable increases being made by Japan, the French East Indies, and the British East Indies, the importations from the two last mentioned having been chiefly augmented by the large importations of rice.

#### EXPORTS.

The increase in exports is largely due to the encouraging increase in the output of copra. Shipments of this product during the fiscal year 1912 amounted to 169,342 tons, valued at \$16,514,749, at an average value per ton of \$97.52, as compared with 115,602 tons, with a value of \$9,899,457, at an average value per ton of \$85.63, in 1911. The demand for this product is increasing, and the new and profitable uses to which it is being put has resulted in a steady improvement in prices. The remarkable increase in the demand from the United States during the year 1911, when shipments were more than double those of 1910, continued during the year 1912, which witnessed the shipment of twice the quantity for 1911, and the increase in price brought the total value up to a sum representing 227 per cent of the value for the preceding year.

Hemp, which heretofore has always held first place among exported articles, has yielded this position to copra. The total shipments of hemp for the year were 153,987 tons, as compared with 165,650 tons in 1911, a decrease of 11,663 tons. The value, however, has risen from \$16,141,340, at an average value of \$97.44 per ton, in 1911, to \$16,283,510, at an average value of \$105.75 per ton, in 1912. Shipments to the United States have increased, however, in both quantity and value, amounting to 69,574 tons, with a value of \$7,751,489, as compared with 66,545 tons, valued at \$7,410,373 in 1911.

A comparison of the average value per ton of hemp exported shows a decided increase during the year, as compared with 1911. The increase, however, in the price of this commodity shipped to the United States was insignificant. Shipments to European countries, which heretofore have consisted largely of the poorer qualities, have this year included a greater proportion of the finer grades. So it is that with a larger proportion of the better grades at an advanced value, and a falling off in shipments of the poorer qualities, the total exports of hemp show an increase in value despite a considerable reduction in quantity.

The exportation of raw sugar during the year 1912 amounted to 186,016 tons, valued at \$10,400,575, as compared with 149,376 tons, valued at \$8,014,360 during the year 1911, exceeding in quantity and value that of any year since the American occupation. The average value per ton was \$55.91, greater than any year since the passage of the so-called Payne Bill. The principal demand for sugar continues to come from the United States, whose purchases amounted during the year to 161,783 tons, valued at \$9,142,833, at an average price of 156.51, as compared with 128,926 tons, with a value of \$7,144,755 in 1911, at an average value per ton of \$55.42. These figures show that the increase in the exportation of this product to the United States is more than the increase in the total exports during the year. On the other hand, exports to other countries have fallen off.

There is an increase in the production of cigars, although the number exported during the year is still below that for the fiscal year 1910. There were 175,320,000 exported during the year 1912, valued at \$2,660,061, at an average value per thousand of \$15.17, as compared with 132,217,000, valued at \$1,700,712, at an average value per thousand of \$12.86 in 1911. Exportations to the United States amounted to 71,973,000, valued at \$1,619,326, at an average value per thousand of \$22.50; as compared with 27,936,000, valued at \$717,907, at an average value of \$25.70 per thousand, for 1911. These figures show that the entire increase in the exportation of cigars for the year was practically absorbed by the United States.

The exportation of cigarettes shows a slight increase. There were exported during the year 34,955,000, valued at \$32,488, at an average price of \$0.90 per thousand, as compared with 33,662,000, valued at \$36,132, at an average price of \$1.07 per thousand, for the fiscal year 1911. Exportations of this product to the United States have decreased, being 5,064,000, valued at \$10,613, at an average value of \$2.09, as compared with 8,659,000, valued at \$15,393, at an average value of \$1.78, for 1911.

In addition to the figures given above, there were taken on board outgoing vessels as ship's stores 948,315 cigars and 47,500 cigarettes.

There was an increase in both the quantity and value of leaf, smoking, and other manufactured tobacco exported. An improvement is noticed also in the price, compared with that for the fiscal year 1911. The exportation of these other tobacco products amounted to 12,548 tons, valued at \$1,902,644, at an average value per ton of \$151.63, as compared with 12,487 tons, valued at \$1,868,723, at an average value per ton of \$149.65. The amount of these products exported to the United States is very insignificant: Five tons, valued at \$1,607, at an average value of \$316.71, as compared with 14 tons, valued at \$8,472, at an average value of \$585.85 per ton, for 1911.

Exports other than those already mentioned were valued at \$2,525,809. Among these miscellaneous items of export, the largest is knotted hemp, with a value of \$615,769. This is a product consisting of specially selected threads of hemp knotted together into long filaments and shipped principally to Italy, France, and Switzerland, where it is woven into fine textiles. Other miscellaneous items are: Native hats, valued at \$502,843; maguey, \$320,791; shells, \$286,818; native cloths, \$182,418; ilang-ilang oil, \$80,879; and native timber, \$71,794.

There is still considerable latitude for the development of the sugar and tobacco industries in the islands before the limitations placed upon the free importation of these products into the United States is reached. Sugar shipments have reached 55 per cent of the free limit and cigars 46 per cent.

The United States continues at the head of the countries receiving goods from the Philippine Islands, the total amount exported to that country during the year 1912 being \$21,517,777, as compared with \$16,716,956 for the year 1911, the largest amount exported from the islands since the establishment of free trade. France, with exportations to that country of \$10,071,013, as compared with \$6,685,323 for the previous fiscal year, now occupies second place, forcing the United Kingdom to third place, exportations to that country being reduced from \$7,547,706 during 1911 to \$7,481,587 for the year 1912. Spain

continues to occupy fourth place, exports to that country having increased from \$2,178,730 during the fiscal year 1911 to \$2,485,661 in 1912. Then follow in order Germany, Belgium, Japan, British East Indies, and Hongkong. Exportations to this last-mentioned country have been decreasing in marked degree from year to year. From \$2,438,438 in 1908 they have fallen off to \$994,649 in 1912.

#### CUSTOMS COLLECTIONS AND EXPENDITURES.

The gross collections of the bureau during 1912 were \$9,347,647.79, being \$668,837.45 greater than for the year 1911. The larger portion of this increase was due to importations of rice. Import duties collected amounted to \$7,502,960.95, an increase of \$625,676.94. Export duties collected were \$1,058,902.19, a decrease of \$10,787.85. The decrease in export duties was a result of opposing factors. Exports of hemp were less in quantity in 1912 than in 1911, but shipments of this product to the United States were greater than in the preceding year, so that the net quantity subject to export duty was considerably reduced. On the other hand, copra, which contributed most to the high export value for the year, and of which dutiable shipments far exceeded those of 1911, is subject to a very much lower rate of duty, and the increased collections from this source were not sufficient to make up for the loss on hemp. The general increase in export trade is reflected, however, in the amount of wharfage collected. Receipts in connection with the licensing of vessels also showed a gain over 1911, but reductions appear in collections on account of storage, and immigration dues, and from other miscellaneous sources.

The above figures represent all the receipts of the bureau, including the amount accruing to the government of the Moro Province, the amount accruing to the credit of the appropriation of the bureau, salaries of bonded warehouse keepers, collections on account of extra services of employees, and collections subject to refund. It does not include refundable export duties reverted to the insular government in the absence of claims within two years, amounting to \$14,299.78, and the duties collected on Philippine products in the United States and credited to the insular treasury, amounting to \$1,348.71.

Of the above gross collections, \$230,723.39 were collected at the ports of Zamboanga and Jolo and accrued to the government of the Moro Province, an increase of \$13,903.16 over the figures for 1911, gains appearing in the receipts at these two ports from all sources with the exception of immigration dues. The largest increase was in the amount of import duties, which were \$9,566.99 in excess of those for 1911.

The net amount accruing to the insular government from customs collections for the year 1912 available for appropriation was \$8,908,123.64, as compared with \$8,272,397.78 for 1911, representing an increase of \$635,725.86. The amount credited to the appropriation of the bureau was \$90,721.83, as compared with \$114,947.18 in 1911. The total cost of the operations of the bureau for the year was \$451,156.15, being \$513.48 less than for 1911. Of the above amount \$430,526.74 was the total expense to the insular government and \$20,629.41 to the Moro Province, as compared with \$435,947.25 and \$15,222.38, respectively, in 1911.

## FOREIGN CARRYING TRADE.

The number of vessels that entered the Philippine Islands from foreign ports during the past year was 949, with a total registered tonnage of 1,965,693; and clearances to foreign ports numbered 903, with tonnage of 1,939,079. In 1911 similar entrances totaled 948, with tonnage of 1,865,196, and clearances 884, representing a total tonnage of 1,808,308. There is, therefore, an apparent increase of 20 in the number of entrances and clearances and of 231,268 in the total tonnage. Many of the vessels included in the above figures call at two or more ports during their visits in these waters for the purpose of discharging import or loading export cargo; and when this fact is taken into consideration the entrances from foreign ports and from other entry ports in the islands reach the total of 1,292, or a tonnage of 2,527,949, and clearances 1,283, with a total tonnage of 2,531,368. In 1911 similar entrances numbered 1,243 and clearances 1,232, with tonnages of 2,347,479 and 2,352,311, respectively. These figures indicate increases of 100 in entrances and clearances and 359,527 in total tonnage.

Based on the latter set of figures, it appears that 52 per cent of the tonnage in the foreign trade of the islands is under the British flag, while American vessels represent little more than 5 per cent of the total tonnage, and domestic vessels approximately 8 per cent.

In the value of imported and exported merchandise carried, the British flag also predominates, although the ratio of this value to the total value of foreign commerce is less than in the fiscal year 1911. The value carried in Spanish vessels has been considerably reduced, while that carried by German and American vessels has increased, giving both of them a more important place than the Spanish, which in 1911 were second to British vessels. The foreign trade carried in American vessels was 6.6 per cent of the total, a little less than the percentage for the preceding year, when it reached 7 per cent.

## COASTWISE TRADE.

Increased activity is noted in the coastwise traffic of the islands during the past year. No figures are available to indicate the comparative quantities of cargo and number of passengers carried, but it is significant that on at least two of the principal interisland routes there are now two regular lines of steamships operating where up to the past year there had been but one.

The number of vessels in commission in the islands at the close of the fiscal year was 55 per cent greater than on June 30, 1911. The larger proportion of these were vessels licensed for lighterage and harbor service, but those engaged in the coastwise trade numbered 764, as compared with 577 at the end of 1911.

The official shipping agent has rendered valuable assistance to coastwise shipping in registering seamen. Through his agency 4,660 seamen were given employment, 3,432 discharged, and 3,442 newly registered during the past year.

## IMMIGRATION AND EMIGRATION.

During the fiscal year 1912 persons to the number of 15,198 came to the Philippine Islands, of whom 2,536 were immigrants; and 19,606 departed, of whom 729 were emigrants, showing a net gain to the

islands of 1,807 residents. Filipinos to the number of 5,313 departed from the islands, 3,889 going to the Hawaiian Islands, being 647 more than went to those islands during the preceding year, while 1,194 Filipinos returned from abroad. American citizens to the number of 4,402 left the islands, 4,311 entered during the 12 months. There was a slight decrease in the number of Chinese, Japanese, and Spanish and a 70 per cent increase in the number of East Indian immigrants during the year.

It is estimated that there are approximately 65,000 Chinese domiciled in the islands, about 50 per cent of whom reside in the city of Manila.

The work performed by boards of special inquiry at the port of Manila in the enforcement of the immigration law (act of Congress of Feb. 20, 1907), and the various acts of Congress known collectively as the Chinese exclusion laws, the number of aliens landed by the insular collector of customs on appeal from the decisions of such boards, those landed under bond not to become public charges, and those deported during the fiscal year 1912, are shown in the following statement:

Races or peoples.	Cases pending from 1911.	New applications.	Total applications.	Aliens landed.	Aliens rejected.	Aliens landed on appeal.	Aliens landed under bond.	Aliens deported.	Cases pending.
Afghans.....		1	1		1			1	
British.....		4	4		4	1		3	
Chinese.....	121	938	1,059	860	100	24		38	137
East Indian.....		32	32	2	30		7	23	
Japanese.....	2	81	83	17	64	3	8	48	7
Malay.....		1	1		1			1	
Mexican.....		1	1		1			1	
Russian.....		1	1		1			1	
Syrian.....		1	1		1				1
Turkish.....		2	2		2				2
Total.....	123	1,062	1,185	879	205	28	15	116	147

My previous recommendation that suitable buildings for the immigration and detention station at Manila be constructed is renewed.

#### REVENUE-CUTTER SERVICE.

The two cutters, the *Sora* and the *Skua*, still constitute the only equipment owned by the bureau for this service and they are entirely inadequate for the work. Funds have, however, been provided for the purchase of a new revenue cutter to have a speed of 16 knots and to be equipped with two high-speed launches for close-shore patrol, for use in the southern waters of the Archipelago.

#### PORT OF MANILA.

The volume of commerce, both foreign and coastwise, at the port of Manila continues to increase. The number of foreign vessels entering the harbor during the year 1912 was 7 per cent more than for the preceding year. This steady growth in the volume of shipping emphasizes the need of still better facilities for handling the constantly increasing commerce of this port.

The collector of customs renews his recommendation for the improvement of Manila Harbor, the construction of two new piers, the building of a bulkhead and cargo sheds connecting the present government piers, the improvement of the Pasig River to provide additional berthing space for coastwise vessels, and the early erection of a new customhouse in the port district. All these improvements are very desirable. They would greatly facilitate the handling of cargo and would stimulate both foreign and coastwise trade. They are well worthy of consideration by the Legislature, and I recommend that the money necessary therefor be appropriated as soon as the condition of the treasury permits.

#### OTHER PORTS.

Business at the port of Iloilo, both imports and exports, shows an encouraging growth. Conditions at this port were much improved by the completion of a portion of the river wall. but there is still much to be done, and the proper accommodation of shipping demands the extension of the wall both up and down the river. The recommendation is repeated that a suitable customs building be erected at this port, the present structure being entirely inadequate and unfit.

At Cebu the total foreign commerce was greater in value in 1912 than in 1911, although imports show a slight decrease. The facilities at this port for the accommodation of shipping, both foreign and coastwise, are better than at any other subport of entry, but the discrimination against this port in the matter of freight rates on through shipments to New York still continues. The new customhouse was formally opened on July 4, 1911. The new wharves give excellent service, but provision should be made for the erection of sheds for the protection of cargo, and it is recommended that funds be made available at an early date for this purpose.

Imports at Zamboanga show an increase in 1912 over the preceding year, but exports fell off considerably. The wharf at that place has been repaired, and extended so that now all vessels calling at that port are enabled to lie alongside, and the province has under consideration extensive port improvements for the future.

Trade at Jolo has increased 27 per cent, and at Balabac shows a slight increase.

#### BUREAU OF INTERNAL REVENUE.

##### PERSONNEL.

On February 11, 1912, Mr. Ellis Cromwell, collector of internal revenue, died, stricken suddenly with heart disease. The government lost by his death an intelligent, zealous, and efficient officer.

Mr. William T. Nolting was appointed collector of internal revenue on February 26, 1912.



## COLLECTIONS.

The following is a summary of the collections made by the bureau of internal revenue during the fiscal years 1911 and 1912:

Items.	1911	1912
Internal-revenue taxes .....	P15,655,791.18	P16,331,125.23
United States internal-revenue taxes .....	189,783.91	448,732.65
Opium taxes and fines .....	119,268.11	116,729.71
Weights and measures taxes .....	75,157.27	85,595.00
Justice of the peace fines and fees .....		292,212.15
Sisiman matadero .....		28,535.81
San Lazaro estate:		
Rentals .....	51,468.82	65,182.22
Miscellaneous .....	65.00	
Sales of public mineral lands .....	4,115.34	441.42
Subscriptions to publicity fund .....		11,400.32
Franchise taxes .....	19,694.29	187,650.21
Total .....	16,115,342.92	17,537,665.72
City of Manila taxes and other revenues .....	13,090,787.28	3,646,472.58
Grand total .....	19,206,131.20	21,184,168.30

<sup>1</sup> In a few instances the figures were revised after the 1911 report was printed; hence the apparent discrepancy.

This table shows an increase in collections over the fiscal year 1911 of P1,978,037.10, or a little over 10 per cent. Of this sum, P921,703 was due to receipts from new sources, while the sum of P1,056,334 was due to increase in the output from manufactories of taxable articles and to a general improvement in business conditions.

By Act No. 2041, effective July 1, 1911, the fees and fines collected by justices of the peace ceased to be municipal revenue and are now insular revenue credited to the appropriation for the judiciary.

The following table shows the collections of internal-revenue taxes made during the fiscal years 1911 and 1912 and the increase or decrease for the different items during the last fiscal year:

Items.	1911	1912	Increase.	Decrease.
Distilled spirits:				
Domestic .....	P2,551,501.04	P2,713,061.06	P161,560.02	
Imported .....	285,126.19	536,623.34	51,497.15	
Wines and imitation wines:				
Domestic .....	47,873.21	60,083.89	12,210.68	
Imported .....	127,011.15	113,307.39		P13,703.76
Fermented liquors:				
Domestic .....	155,500.00	178,650.00	23,150.00	
Imported .....	29,358.46	29,526.34		5,830.12
Smoking and chewing tobacco:				
Domestic .....	168,138.51	205,451.66	37,313.15	
Imported .....	64,747.27	77,573.79	12,826.52	
Cigars:				
Domestic .....	226,630.44	255,687.58	29,057.14	
Imported .....	21.20	13.31		7.89
Cigarettes:				
Domestic .....	4,067,920.46	4,376,711.95	308,791.49	
Imported .....	1,657.54	1,998.51	310.97	
Matches:				
Domestic .....	254,000.00	246,860.00		7,140.00
Imported .....	87,262.87	123,796.45	36,533.58	
Dealers in alcohol and tobacco products .....	516,918.70	556,128.09	49,209.39	
Merchants, manufacturers, and common carriers .....	1,793,288.14	1,934,586.74	141,298.60	
Occupations, trades, and professions .....	563,102.94	569,095.20	5,992.26	
Cedulas personales .....	3,883,415.00	3,643,117.80		240,297.20
Documentary stamp taxes .....	242,410.62	272,935.35	30,524.73	
Banks and bankers .....	223,588.13	245,086.31	21,498.18	
Insurance companies .....	31,521.91	32,133.80	611.89	
Forest products .....	334,763.27	364,685.37	19,922.10	
Miscellaneous .....	34.13	29.30		5.17
Total .....	15,655,791.18	16,331,125.23	942,313.02	266,978.97

From the foregoing table it will be seen that there has been an increase of internal revenue during the fiscal year of ₱675,334.05, or about 4.3 per cent. Exclusive of cedula taxes, the internal-revenue collections show an increase of 7.8 per cent. This increase of revenue indicates improved business conditions in the islands. There is noted a falling off in importations of wine and beer, while there has been a slight increase in imported smoking and chewing tobacco, and a considerable increase in imported matches.

Of the total amount of internal-revenue collections during the year, there accrued to the insular treasury ₱9,010,688.68; to provincial treasuries ₱4,293,099.13; and to municipal treasuries ₱3,027,337.42, as compared with ₱8,162,847.76, ₱4,452,256.80, and ₱3,040,686.62, respectively, for the fiscal year 1911.

The following table shows the city of Manila taxes and other revenues collected during the fiscal years 1911 and 1912:

Item.	1911	1912
Real estate tax.....	₱1,286,062.07	₱1,299,436.79
Matadero receipts.....	199,738.38	113,204.01
Market receipts.....	286,351.25	319,666.06
Municipal licenses.....	220,100.40	217,432.72
Rentals of city property.....	29,055.97	28,484.55
Municipal court receipts.....	107,134.32	115,243.59
Pail system.....	69,384.85	63,863.99
Odorless-excavator service.....	25,487.00	20,160.00
Building permits.....	22,006.57	27,086.78
Water-rents.....	296,561.38	312,923.43
Board of health fees.....	4,348.70	4,715.30
Justice of peace and sheriff's fees.....	16,556.53	18,841.34
Cementerio del Norte.....	24,772.44	27,583.27
Franchise taxes.....	155,456.90	60,876.64
Rice sales.....		228,056.66
Construction of streets.....		71,201.79
Construction of sidewalks.....		12,699.44
Transportation, Insular Government.....		106,435.96
Other minor receipts, miscellaneous, and internal-revenue dividend.....	439,770.52	604,568.27
Total.....	3,090,787.28	3,646,472.58

<sup>1</sup> Revised figures.

#### COST OF COLLECTION.

The cost to the government of making the above collections, including the enforcement of certain laws, ordinances, and regulations which are not revenue measures, was ₱644,109.24, equal to 3.06 centavos for each peso collected. This cost of collection has been undergoing a gradual reduction since the year 1907, when the cost of collecting each peso was 5 centavos. The above sum includes ₱544,109.24 received by appropriation and ₱100,000 received from the city of Manila for the assessment and collection of city taxes and charges, but does not include the expense of collection incurred by provincial governments.

The cost of assessing and collecting the taxes of the city of Manila during the year amounted to 2.74 centavos for each peso collected. This cost was 3.23 centavos for the year 1911, and 3.45 centavos for 1910.

In addition to the amounts shown above, the sum of ₱29,038.08 was expended from the special opium fund in the enforcement of the law prohibiting the importation, sale, and use of opium except for medicinal purposes, as compared with ₱23,554.55 during the fiscal year 1911.

## DISTILLED SPIRITS, WINES, AND LIQUORS.

*Distilled spirits.*—The foregoing table of internal-revenue tax collections shows an increase during the year of taxes collected on both domestic and imported distilled liquors of 8.4 per cent.

The total output from registered distilleries during the year was 11,426,728 proof liters, being over 9 per cent more than during the preceding fiscal year. The quantity of denatured alcohol used for industrial purposes, principally for lighting, was almost double the quantity used during the fiscal year 1911, and almost four times as much as was used during the fiscal year 1910.

*Wines.*—A slight falling off is shown in taxes collected on imported wines and imitations.

The following table shows the quantity in gauge liters of domestic and imported wines and imitation wines on which taxes were collected during the fiscal years 1911 and 1912:

	Containing not more than 14 per cent alcohol.		Containing more than 14 per cent alcohol.		Sparkling wines.	
	1911	1912	1911	1912	1911	1912
Domestic.....	456,303	603,313	78,480	76,057		
Imported.....	1,139,160	977,351	95,744	113,505	22,419	16,412

*Fermented liquors.*—Taxes were collected during the year on 5,054,458 gauge liters of beer, of which 4,466,250 were of domestic manufacture and 588,208 were imported, as compared with a total of 4,621,460 for the year 1911, of which 3,887,500 were of domestic manufacture and 733,960 were imported.

There were exported during the year 6,703 liters of domestic beer, as compared with 3,900 during the fiscal year 1911. The total output of domestic beer exceeded that of the year 1911 by 578,750 liters.

## TOBACCO PRODUCTS AND MATCHES.

*Leaf tobacco.*—The following comparative statement shows the quantity of unstemmed leaf tobacco produced, the quantity used in the manufacture of cigars, cigarettes, smoking and chewing tobacco, and the quantity exported, during the calendar years 1910 and 1911:

	Calendar year.	
	1910	1911
Leaf tobacco on hand by dealers and manufacturers at beginning of calendar year.....	<i>Kilos.</i> 17,324,680	<i>Kilos.</i> 18,072,961
Production.....	25,017,129	28,368,519
Total.....	42,341,809	46,441,500
Quantity used in the manufacture of—		
Cigars.....	2,943,950	2,522,909
Cigarettes.....	6,244,637	7,368,671
Smoking tobacco.....	162,565	227,336
Chewing tobacco.....	196,679	190,021
Total.....	9,547,731	10,309,936

<sup>1</sup> Including balances not previously reported.

	Calendar year.	
	1910	1911
Exported in the leaf —	<i>Kilos.</i>	<i>Kilos.</i>
To the United States.....	5,477	2,208
To other countries.....	11,810,875	12,668,820
Total.....	11,822,352	12,660,528
Disposed of through retailers to consumers (no tax is imposed on cigars and cigarettes made by hand by the actual consumers thereof), and shrinkage..	<sup>1</sup> 2,898,745	2,553,331
Total.....	24,268,828	35,523,845
Balance on hand by dealers and manufacturers at end of calendar year.....	<sup>2</sup> 18,072,981	20,937,656

<sup>1</sup> There were also exported 390,413 kilos of cuttings, clippings, and waste during 1911.

<sup>2</sup> Includes waste tobacco used for industrial purposes.

<sup>3</sup> Including balances not previously reported.

*Smoking and chewing tobacco.*—The following statement shows the quantities, expressed in kilograms, of domestic and imported smoking and chewing tobacco on which taxes were collected during the fiscal years 1911 and 1912:

Kind.	Domestic.		Imported.	
	1911	1912	1911	1912
Smoking.....	152,816	229,404	82,201	94,056
Chewing.....	191,141	193,961	52,328	71,672
Total.....	343,957	423,365	134,529	165,728

In addition to the smoking and chewing tobacco consumed in these islands, the exports of smoking and chewing tobacco during the past year were 29,666 kilograms, as compared with 39,734 kilograms in the fiscal year 1911.

*Cigars.*—The production of cigars in the islands during the past year was 284,918,845, a gain of 56,667,554 over the previous year. The domestic consumption amounted to 109,924,014, as compared with 96,115,525 the preceding year. The cigars exported to foreign countries and to the United States amounted to 104,476,781 and 70,518,050, respectively, as compared with 104,604,170 and 27,531,596, respectively, for the fiscal year 1911.

The demand for Philippine cigars in the United States fell off in April, 1910, about six months after the first large shipment of duty-free cigars reached that market, and for several months thereafter very few cigars were shipped to the United States.

With the cooperation of the Manila Tobacco Association, rules and regulations have been adopted governing the shipment of cigars to the United States. These rules provide, among other things, that the cigars shall be divided into three groups—first, second, and third. Not less than 25 per cent of the first group nor more than 25 per cent of the third group shall be exported and entitled to the government inspection stamp. The increased demand for the Philippine cigars in the United States is the best evidence that these regulations are assisting the tobacco industry in these islands. It is not believed,

however, that the cigar manufacturers are receiving a fair price, considering the quality of their goods. We have now passed the experimental stage and it is believed that the Philippine cigars will soon have a firm hold in the United States.

*Cigarettes.*—The total production during the year was 4,404,929,808 cigarettes, as compared with 4,094,028,988 during the preceding year. Of these, 4,369,153,048 were consumed in the islands and 35,776,760 were exported to foreign countries, as compared with 4,058,603,123 and 35,425,865, respectively, for the fiscal year 1911. Over three-fourths of the cigarettes exported went to China. The Philippine cigarette does not seem to meet with much favor in the United States, the number exported tax free to that country for the years 1910, 1911, and 1912 being, respectively, 10,213,200, 8,387,900, and 3,061,900.

*Matches.*—The output during the fiscal year 1912 of the one match factory in the islands decreased 2.8 per cent as compared with the fiscal year 1911, and the imported matches show an increase of nearly 42 per cent over the fiscal year 1911.

#### LICENSE TAXES.

*Dealers in alcohol and tobacco products.*—There was collected from this source during the past year the sum of ₱566,128.09, as compared with ₱516,918.70 during the previous year, an increase of nearly 10 per cent.

*Merchants, manufacturers, and common carriers.*—A steady increase in the amount of percentage taxes paid, which has been noted for several years last past, has continued during the fiscal year 1912, and is a fair indication of the improved business conditions in the islands. Under this head ₱1,934,586.74 were collected in the past year, as against ₱1,793,288.14 during the fiscal year 1911. Of this amount 92.5 per cent was paid by merchants, 5.9 per cent by manufacturers, and 1.6 per cent by common carriers. While the increase in the percentage taxes collected from merchants and manufacturers, ₱131,940.50, is not as large as the increase shown the previous year, it nevertheless indicates an increase of nearly ₱40,000,000 in the gross value of goods, wares, etc., exclusive of liquors and tobacco products and all exports, sold by merchants and manufacturers throughout the Islands.

*Occupations, trades, and professions.*—There were collected as specific occupation taxes during the year ₱569,095.20, as against ₱563,102.94 during the fiscal year 1911. Of this amount 74.5 per cent was paid by the owners of cockpits, 9.7 per cent by lawyers, doctors, civil engineers and surveyors, and 15.8 per cent by all other occupation-license taxpayers. In 540 municipalities additional taxes on cockpits were imposed by municipal ordinances. In 31 municipalities no cockpit licenses were issued during the year.

#### BANKS AND BANKERS AND INSURANCE COMPANIES.

As shown by the amount of taxes assessed thereon, the average monthly deposits with banks has increased from ₱13,250,000 in the calendar year 1905 to ₱27,333,000 in 1911, not including deposits in postal savings banks.

According to the taxes collected, the average capital of the banks increased from ₱11,918,765 in the calendar year 1910 to ₱14,397,041 in 1911, and the average deposits from ₱24,661,585 to ₱27,341,834.

An increase is noted in the business of the insurance companies. Based on taxes paid, the total amount of insurance during the calendar years 1910 and 1911 was as follows:

	1910	1911
Life.....	₱16,813,630.42	₱24,537,604.80
Fire.....	122,287,938.51	133,299,980.13
Marine.....	104,633,359.79	110,911,246.28
Accident.....	595,000.00	615,000.00
Typhoon and earthquakes.....		1,710,508.99

#### CEDULAS PERSONALES.

A decrease of ₱240,297 is shown in collections from the sale of cédulas personales or certificates of registration during the past year. Over half of this decrease was due to the increased number of regular cédulas issued before the delinquency period arrived in 1911 as compared with 1910, resulting in a decrease in the sale of delinquent cédulas in the first half of the fiscal year 1912. Over ₱18,000 of the decrease was due to the exemptions from the cédula taxes in the Provinces of Batanes, Mindoro, and Palawan, provided by Act No. 2055. The long drought experienced during the year delayed considerably the collection of the cédula tax, but it is expected that before the close of the present calendar year the collections under this head will be brought up to normal.

The double cédula tax was in force in 33 provinces, the same in which it was in force in the two preceding fiscal years, and in which reside 95.68 per cent of the cédula-paying population. Over 90.7 per cent of the cédulas sold during the year were without delinquency charges added.

#### SAN LAZARO ESTATE RENTALS.

The following is a summary of the work accomplished during the year in the collection of rentals from tenants on the San Lazaro estate:

Sites rented July 1, 1911.....	2,256
Sites rented June 30, 1912.....	2,278
Tenants June 30, 1912.....	1,418
Amount collected.....	₱65,182.22
Amount delinquent June 30, 1912.....	₱4,747.00

#### WEIGHTS AND MEASURES.

An increase of nearly 14 per cent is noted in the collections of fees for the testing, sealing, etc., of weights and measures.

#### OPIUM.

The receipts from the enforcement of the opium law have been almost exclusively composed of fines imposed for violations of its provisions. There were collected as taxes and fines during the fiscal year ₱116,729.71 as against ₱119,268.11 during the previous fiscal

year. This decrease is in part due to the larger number of jail sentences imposed by the courts and partly to a decrease in the illegal use of opium.

During the year 1,370 persons were apprehended for violations of the opium law, as compared with 1,248 during the previous year. There were 797 convictions, 204 cases were compromised, 42 defendants were deported, and 141 cases were pending at the close of the fiscal year 1912.

#### PUBLICITY FUND.

During the year 125 subscribers voluntarily contributed ₱11,460.32 to a general publicity fund to be raised by private subscriptions and by an equal amount, not exceeding ₱50,000, appropriated by the Legislature for expenditure under the direction of the Governor General by a committee consisting of representatives of the commercial interests and of the government for the purpose of advertising Philippine products and interests. These contributions were collected by the bureau of internal revenue and deposited in the insular treasury.

Full details of the operation of the bureau of the treasury, the bureau of customs, and the bureau of internal revenue will be found in the reports of the respective directors of those bureaus. The report of the attorney general gives a detailed statement of the work of the bureau of justice and of the judiciary.

Respectfully submitted.

GREGORIO ARANETA,

*Secretary of Finance and Justice.*

To the PHILIPPINE COMMISSION,  
*Manila, P. I.*

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REPORT OF THE SECRETARY OF  
PUBLIC INSTRUCTION.

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# REPORT OF THE SECRETARY OF PUBLIC INSTRUCTION.

DEPARTMENT OF PUBLIC INSTRUCTION,  
*Manila, October 11, 1912.*

GENTLEMEN: I have the honor to present herewith the eleventh annual report of the secretary of public instruction. Unless otherwise stated, the report covers the period between July 1, 1911, and June 30, 1912.

During the months of July, August, and the greater part of September of last year, I was absent from the islands on leave and the work of the department was carried on by Hon. W. Cameron Forbes, Governor General, as acting secretary of public instruction.

## BUREAU OF EDUCATION.

### ENROLLMENT.

At the close of schools in the month of March there were in operation 3,364 primary, 283 intermediate, and 38 secondary public schools, employing 664 American and 7,696 Filipino teachers. During the year 529,655 pupils were enrolled, with an average daily attendance of 329,073.

For the school year 1910-11 the enrollment was 610,493 and the average daily attendance 355,722; that is, the total enrollment was about 81,000 less and the average daily attendance was nearly 27,000 less than last year. In other words, there was a loss in enrollment, but a gain in the percentage of pupils in actual attendance in the schools. In this connection the following table will be of interest:

	Average daily attendance.		
	1909-10	1910-11	1911-12
Primary:			
Grade I.....	191,498	209,119	171,168
Grade II.....	60,930	74,232	69,909
Grade III.....	31,461	33,125	39,280
Grade IV.....	14,062	17,386	22,479
Intermediate:			
Grade V.....	7,600	9,466	10,950
Grade VI.....	4,234	6,042	7,190
Grade VII.....	2,480	3,402	4,608
Secondary:			
First grade.....	1,127	1,603	1,971
Second grade.....	490	624	796
Third grade.....	286	282	452
Fourth grade.....	166	241	260
Total.....	314,334	355,522	329,073

It will be seen from this table that the decrease is in the lowest grades, there having been a considerable increase in all except the first and second years of the primary course.

This decrease in enrollment during the past year was not unexpected. In many towns the balances in the municipal treasury have been expended in constructing permanent school buildings, and the expenditure of current funds for permanent improvements of course necessitates corresponding retrenchments in salaries and like current charges. The cost of intermediate is considerably more than that of primary instruction. More emphasis than ever has been placed upon industrial training, which is more expensive than simple academic instruction, so that the same expenditure would provide for a smaller number of pupils.

Another cause operating to decrease enrollment was the increase in the salaries of the Filipino teachers. During the year the average salary paid insular Filipino teachers has been increased from ₱45.15 to ₱49.88. This increase carries with it an additional expenditure of nearly ₱35,000 from insular appropriations. The average salary of municipal teachers has in the same period been raised from ₱18.55 to ₱19.93. Had the number of these teachers been as large during the past year as it was during 1910-11 this raise would have resulted in an increased expenditure of approximately ₱135,000, and since there has been no appreciable increase in municipal revenues, the salaries of the teachers could be made larger only by decreasing the total number employed. The following table shows the total number of salaried insular and municipal teachers with the average salaries for the years 1908 to 1912:

	Insular.		Municipal.		Total.	
	Number.	Average salary.	Number.	Average salary.	Number.	Average salary.
1908-9.....	816	₱43.97	6,882	₱17.83	7,698	₱20.60
1909-10.....	1,010	44.66	7,120	18.29	8,130	21.66
1910-11.....	1,237	45.15	8,387	18.55	9,624	21.97
1911-12.....	1,064	49.88	6,487	19.93	7,551	24.16

This decrease should not be discouraging. There has been no real loss. The most efficient teachers have been retained and only unsatisfactory schools closed. It has been and will continue to be the purpose of the department to increase the efficiency of our present public school system rather than to expand beyond the point where satisfactory teachers can be obtained and the necessary equipment provided to do reasonably good work with our present available funds. In short, there can be no further expansion until we have more money to spend for public schools.

#### COURSE OF STUDY.

No noteworthy changes have been made in the course of study during the past year. The course requires 11 years for completion—4 in the primary, 3 in the intermediate, and 4 in the secondary grades.

In the intermediate grade six courses are given: The general course, the course for teaching, the course in farming, the trade course, the course in housekeeping and household arts, and the course in business. On reaching this grade the pupil, with perhaps some advice from the teacher, elects the course he wishes to take. All intermediate schools

are not equipped to teach all the courses—some give only one, some two or three, some few all six—but usually a pupil can find a school reasonably near his home in which he can obtain some elementary training in the subject he wishes to study.

The high school course has been revised. It is now as follows:

*First year.*—Algebra, English, composition, general history.

*Second year.*—Plane geometry, English, physical geography, government, general history, United States history.

*Third year.*—Review arithmetic, English, biology (double period), colonial history, commercial geography.

*Fourth year.*—Advanced algebra (optional), solid geometry (optional), Latin (optional), literature, composition and rhetoric, business English, physics (double period), economic conditions of the Philippines.

The present particular purpose of the high schools is to prepare students for collegiate work, and the course has been shaped to this end. The number of students graduated is not yet large, and, after finishing the high school, three-fourths of the graduates continue their studies elsewhere. Should the time come when a considerable percentage go directly from the schools to the active occupations of life, perhaps some readjustment should be made, both in the studies and in the length of the course, in order that these young men and women should have some more practical equipment for a career of usefulness than the present course gives them. The aim of education in the Philippine Islands must, for many years, be in large part utilitarian; the boys and girls must be taught that manual labor is honorable and equipped for some occupation, trade, or profession upon which they can enter at the conclusion of their studies.

#### INDUSTRIAL INSTRUCTION.

Some industrial instruction is now given in practically all schools. On entering, a pupil must take up, as a part of each day's work, certain manual exercises, beginning as play but leading to the regular courses provided in the advanced primary and the intermediate grades. In February, 1912, an average month, 216,290 boys and 125,203 girls, representing 91 per cent of the monthly enrollment, were engaged in industrial work, such as regular manual training and trade work, school gardening and farming, housekeeping, lace making and embroidery, the making of hats and mats, and the study of basketry.

A close touch is kept on the work of the schools by means of provincial industrial supervisors, who constantly visit the schools in their territory; of inspectors and instructors attached to the general office, who travel throughout the islands in general; of publications, bulletins, and correspondence; through industrial exhibits, and through the appointment of *pensionados* to receive special industrial training in the Philippine Normal School and the Philippine School of Arts and Trades.

The finished product which is turned out by the children of the public schools is remarkable both for its quality and for its diversity. The exhibit held by the bureau of education in connection with the carnival last February was a source of constant surprise and pleasure to the thousands of persons who visited it. The dainty laces and embroideries, the really beautiful baskets, the hats, the pottery, the furniture, and scores of kindred products were eagerly sought for

and many times their number could have been sold. While the sale of the product is incidental to the work of the schools, the display brought in nearly ₱30,000, which in part went to the children, but in a great measure reimbursed the schools for the outlay to which they had been put for raw materials. The eagerness with which the articles were bought shows, however, that the time has come when household industries may be made a source of large revenue to the people of the islands, and to further their development the Legislature in its last session created the School of Household Industries.

*School of Household Industries.*—This school was created by Act No. 2110 of the Philippine Legislature, which provided ₱100,000 for its establishment and support. Briefly stated, the purpose of the school is to teach adult women lace making and embroidery, and the instruction is definite and practical. Some 150 women, living in widely separated parts of the islands, have been brought to Manila and enrolled in the school. After a six months' course they will be returned to their homes, where it is expected they will gather about them and instruct other women, and thus increasing numbers of persons will busy themselves with household industries. As soon as one class has become proficient and gone from the school another will be brought in to take its place. Of course, it is possible to train the women and create a demand for their work only because lace making and embroidery has been so thoroughly taught in the schools that knowledge of and enthusiasm for the subject are widespread in the Archipelago. Housekeeping among the poorer classes is simple and takes only a small part of the woman's day, so that she has much unoccupied time which can be given to useful employment, increasing the family income and replacing habits of idleness with those of thrift and industry.

It is evident that the practical benefit to be derived from this school depends almost entirely on the touch which is kept on the women after they have been trained. They must be encouraged to continue the work by having material and patterns available and a ready market for their finished product. Already the trade of the islands in these lines is considerable, but it is not so firmly established that it will grow and develop without careful supervision and encouragement. The bureau of education can do a great deal in the way of keeping in touch with the women and showing them how to establish local centers, but it is not, of course, a commercial institution and can not go to the lengths which will, for the present, be necessary.

The chief responsibility for the introduction of this work rests with the sales agency, an organization created by the government primarily to market the wares of the non-Christian tribes, but whose functions have been extended to a general supervision over household industries.

#### PERSONNEL.

There has been no change in the directorate of the bureau, but during the year four division superintendents have resigned, and Mr. J. J. Coleman, who has been in the bureau for some 11 years, was recently compelled by sudden ill health to return to the United States. It is earnestly hoped that Mr. Coleman may recover his health and return to duty in the islands, where he has served long and faithfully.

In order to keep the heads of the bureau in more intimate touch with the work in the field, there has been added to its force an inspecting superintendent and several traveling supervisors, who are continually visiting the schools of the islands, coordinating, developing, and strengthening the work in them.

*American teachers.*—As has been stated elsewhere, there are something over 650 positions for American teachers in the bureau of education, of which about 15 per cent usually become vacant each year through the elimination of teachers whose services have not been satisfactory and the normal resignations of those who, after a period of service in the Tropics, desire to return home. For these places new appointees must be found in the United States. As was stated last year, it was thought that better results would be obtained if some person thoroughly familiar with the needs of the insular service and of conditions attaching to the work here were sent to the United States and charged directly with the selection of new teachers. This plan has proved a distinct success. During the months of April, May, and June 118 new teachers arrived in the islands, each of whom had been interviewed by this official and had his qualifications thoroughly gone into. Upon their arrival a few of these new appointees were sent to Baguio, where, in the vacation assembly then in session, they might receive some special instruction as to the duties of public-school teachers in the islands, and by rubbing elbows with others who have long been in the service learn how best to adjust themselves to unfamiliar conditions. The result of this venture was quite satisfactory, and it is hoped that in another year larger numbers can be sent. Those who did not go to Baguio were given a course of special lectures in Manila. Except in the larger cities, living conditions are rarely suitable for single women, and in consequence few have been appointed.

There was a time when some stigma attached to the American teacher in the Philippines because, by their crudities of manner and niggardly mode of living, a few ill-chosen employees had reflected discredit upon the entire service. This time has happily long passed, and it would be difficult to find, not only in the islands but in the United States, a more steadfast, capable, and efficient body of men and women than our American teachers.

*Filipino teachers.*—At the close of the year 7,696 Filipino teachers were on duty. Of this number 1,064 were paid from insular funds, 6,487 from municipal funds, and 145 were apprentices who received no salary. The original task of providing suitable Filipino teachers for the public schools was one of great difficulty; there was no large supply to draw from and it was necessary not only to instruct young men and women in the science of teaching but to furnish them a new language as well. This task has now been pretty well accomplished. The Filipino teachers have, as a rule, a satisfactory knowledge of English and have learned how to impart their knowledge. Almost all primary instruction is now given by them and, to a considerable extent, the intermediate instruction has been turned over to them also. Each year the number engaged in secondary instruction increases, and 161 have been assigned to positions as supervising or assistant supervising teachers. I have already said that the salaries of the teachers have been increased; and although they are not yet commensurate with the salaries usually received by

their fellows in other walks of life, further large increases can not be made until there is some considerable augmentation of our revenues. There is, however, one advantage attaching to their service which in a large measure compensates for these smaller salaries—the exceptionally large number of better-paid positions with which satisfactory teachers can be rewarded after having become qualified to fill them.

*Pensionados in insular schools.*—In order to provide an adequate supply of competent Filipino teachers, the government has created a large number of scholarships to which both teachers and students are appointed. The *pensionados*, as those holding scholarships are called, are assigned to the Philippine Normal School, the Philippine School of Arts and Trades, and a few to the College of Agriculture at Los Baños. A teacher *pensionado* is ordinarily given one year of higher instruction, a student two or three. During the year there were some 231 *pensionados*, the great majority of whom were doing thoroughly satisfactory work. These scholarships have done more than any other one thing to improve the teaching force, and it will be a long time before the number can be diminished to any considerable extent.

*Pensionados in the United States.*—With a view to providing the government with young Filipino men and women suitable for appointment to positions requiring collegiate training, the Commission, shortly after its creation, established scholarships in the United States. So far 211 appointments have been made thereunder; and some of the brightest and most capable young men in the government service received their training in some college or university in America. During the year only two appointments were made, and with the establishment of the university, in which instruction is given in almost every profession needed in the islands, it is believed unnecessary to continue to send young men and women to the United States for undergraduate work. At its last session the Legislature provided 15 fellowships for advanced work, and these should take care of all the students whom, in ordinary circumstances, the government should find it necessary to maintain elsewhere than in the islands.

*Vacation assemblies.*—The fifth teachers' vacation assembly was held at the teachers' camp in Baguio from April 15 to May 17. The purpose of the assembly is to provide a place where, for a moderate outlay, teachers can spend their holidays amid agreeable surroundings and be given an opportunity for study and intellectual stimulation as well as to foster and develop an *esprit de corps* and a spirit of loyalty and enthusiasm among the teachers. During the assembly frequent professional conferences were held, by which men actually engaged in the work of teaching were given an opportunity of embodying the results of their experience and observation in a series of reports, which are of great value in shaping and developing the work of the bureau. Courses of lectures were given by professors who had been brought from the United States for that purpose, and a comprehensive athletic program was carried out. During the season nearly 400 persons were registered at the camp.

The vacation assembly for Filipino teachers was held at the Philippine Normal School from April 15 to May 24. Fourteen hundred and ninety-two students were enrolled, representing 36 school divisions. At the same time classes were held in the Philippine School of Arts and Trades, with an attendance of 245 students from 35 school divisions. Regular academic classes were held, and special

attention was given to industrial instruction, gardening, and athletics. Lectures were delivered by prominent men and various excursions to places of interest adjacent to Manila were provided. Similar institutes were held in several of the large provincial capitals.

#### BUILDINGS AND SITES.

The chief step toward supplying the islands with permanent school buildings for the smaller schools was taken when the Philippine Legislature as its first legislation passed Act No. 1801, appropriating ₱1,000,000 for assisting municipalities to provide schoolhouses for their barrios. This sum has already been allotted, and by Act No. 2029 another ₱1,000,000 have been appropriated, which is to be available at the rate of ₱250,000 a year. Of this latter appropriation ₱865,760 remain unallotted.

It was at first difficult to obtain plans for permanent buildings which could be put up for the comparatively small amounts of money available for each separate project—the average amount being about ₱6,000. As a consequence, standard plans were prepared for buildings—simple in design but durable in quality and adequate in size—of reinforced concrete; and now practically all the smaller school buildings are put up from these plans. So far a total of 135 schoolhouses have been completed, 83 of which are built in accordance with the standard plans; and 173 are under construction, 81 of which are so nearly completed that they have already been occupied.

Another matter which is now receiving the somewhat tardy attention of the department is the acquisition of suitable sites for the school buildings. With the spread of athletics and the necessity of teaching the children how to raise vegetables and of developing their aesthetic tastes through flowers and an attractive setting for the schoolhouses, it has been found necessary to have a considerable amount of ground around the buildings. The tendency heretofore has been to locate the school building either on or immediately adjacent to the public plaza, which is the center of the business district and where land is apt to be needed for markets and other commercial purposes. In consequence there has been difficulty in obtaining sufficient unoccupied ground. Hereafter the minimum site which will, in ordinary circumstances, be approved for central schools is 10,000 and for barrio schools 5,000 square meters. After the school building has been occupied the grounds will be improved according to definite plans, a part being given over to gardens and a part to playgrounds. The necessary outbuildings for perfect sanitation will be provided, and scrupulous cleanliness will be exacted both for the buildings and for the grounds. So far the bureau is in possession of 137 school sites of 10,000 square meters or more and 332 school sites of 5,000 square meters or more, almost half of which have been acquired during the past year. It is hoped that next year a substantial increase in the number can be reported.

Even with the very liberal provision which the government has made from its limited revenues for school buildings, it will be many years before all of our public schools will be permanently housed. Some rules and regulations regarding temporary buildings have, therefore, been provided. In general they are that the buildings must be well-lighted and thoroughly sanitary; and plans for a model building can always be obtained from the bureau.



## INSULAR SCHOOLS.

Mention has already been made of the School of Household Industries.

*Philippine Normal School.*—The Philippine Normal School has just been moved into a new building large enough to provide for its present needs and the reasonable growth of the next few years. This will be supplemented by a new girls' dormitory, for the construction of which plans have been prepared and some ₱275,000 made available. The Normal School is now devoted entirely to the training of teachers. Forty students were graduated last March, and of these 28 are already in the employ of the bureau of education. Before entering the school an applicant must sign a statement that one intends to devote oneself to the profession of teaching. Nine hundred and twenty-eight pupils were enrolled last year.

*Philippine School of Arts and Trades.*—The Philippine School of Arts and Trades is still inadequately provided for in the shops on Calle Arroceros. Two hundred and twenty-five thousand pesos are available for new buildings, and while this sum is not sufficient properly to house the school it will greatly relieve present congestion. The work in the school during the year has been thoroughly satisfactory.

*Philippine School of Commerce.*—During the year 362 pupils were enrolled in the school of commerce as against 391 for the preceding year—a decrease because the requirements for admission have been raised to a completion of the sixth grade. The demand for stenographers and clerks is so large that almost no students have completed the entire four years' course, and no one who does reasonably satisfactory work has difficulty in obtaining immediate employment at a satisfactory wage.

*School for the Deaf and Blind.*—Forty-four pupils were cared for in this school during the year. These pupils come from various parts of the islands and are being taught to read, write, and perform such simple occupations as they can.

## ATHLETICS.

Athletics play an important part in the work of the public schools. There is hardly one in the islands which does not have a baseball team, and the pupils are in every way encouraged to participate in some form of athletics. A great many field meets were held during the past school year, and the crowds which attended them were even larger and more enthusiastic than they would have been at similar events in the United States. During the carnival an interscholastic meet was held in Manila, at which the provinces which had won the interprovincial meets were represented. When athletics were first introduced into the schools emphasis was placed on such specialized games as baseball and track events. It was found that these games were not bringing the necessary physical training to the great majority of the pupils, and more recently such games as volley ball, pickaback relays, and the like have been introduced and emphasized. In these games practically the entire student body participates.

## LEGISLATION.

The following legislation touching the bureau was enacted during the year:

Act No. 2069 of the Philippine Commission, appropriating the sum of ₱235,700 for the support of schools in non-Christian Provinces for the year 1912.

Act No. 2070 of the Philippine Commission, appropriating the sum of ₱46,000 for the construction of school buildings in the non-Christian Provinces.

Act No. 2110 of the Philippine Legislature, appropriating the sum of ₱100,000 for the establishment in the city of Manila of a School of Household Industries, and providing for 300 scholarships therein.

Act No. 2134 of the Philippine Legislature, providing for the appointment of 100 students to pursue a course of training at the Philippine Normal School, or at the Philippine School of Arts and Trades, and appropriating the sum of ₱30,000 therefor.

Act No. 2146 of the Philippine Legislature, authorizing provinces to provide from current funds for the support of scholarships in the University of the Philippines or in any other Government educational institution in the city of Manila.

Act No. 2182 of the Philippine Commission, appropriating the sum of ₱20,000 for the purpose of constructing at the teachers' camp, Baguio, the girls' dormitory for Filipino teachers.

*Desired legislation.*—The passage of legislation covering the following subjects is recommended to the Legislature:

1. A law authorizing municipalities to expropriate lands for school purposes. At present municipalities are permitted to expropriate lands for streets, cemeteries, and markets, and it frequently happens that exorbitant prices are asked for parcels of ground which are needed by the schools, simply because the council has not the power of expropriation.

2. Without recommendation I lay before the law-making body the question whether municipalities might not be given greater latitude in fixing the percentage of taxation for school purposes. I do so because in some municipalities where the revenue is insufficient, classes in the public schools are being maintained by voluntary contributions and this situation gives rise to some problems. Many people are unwilling to contribute to the support of the schools, but they send their children to them none the less. Of course if we have public schools, however they are supported, they must be open to everyone, and this condition is apt to result in misunderstandings and bickerings.

3. I also here reiterate my former recommendations that there be no further extension of the time when English is to become the official language of the government. Without again going into the reasons for this recommendation, I will only say that the frequent extensions of this period have worked great harm upon our schools and put their pupils at a marked disadvantage.

## FINANCIAL STATEMENT.

The current appropriation for the bureau of education amounted to ₱3,610,000. In addition a balance of ₱22,626.35 was brought forward from preceding years to cover expenses which had been incurred during the fiscal year 1911 but which could not be paid until the following year. Expenditures for permanent improvements at Malabon, at the Central Luzon Agricultural Farm at Muñoz, and elsewhere, amounted to ₱27,987.95, leaving a balance of ₱3,604,638.40.

The total expenditures were ₱3,603,385.56, of which amount ₱2,612,090.70 were for salaries and ₱991,294.86 for contingent expenses. For the support of schools in the non-Christian provinces during the year the sum of ₱235,700 was appropriated by Act No. 2069, which, together with a balance of ₱23,950.10 provided by Act No. 1992, made a total of ₱259,650.10 available for expenditure. Of this amount ₱255,501.72 was expended, leaving a balance of ₱4,148.38, which was carried forward to the fiscal year 1913.

#### GENERAL.

During the year the following publications have been issued by the bureau:

Bulletins Nos. 37 and 38, School Buildings and Grounds, and School Buildings, Plans, Specifications, and Bills of Materials, covering the policy of the bureau with respect to building and school grounds improvements, and containing detailed information of service to those directly interested in the work.

Bulletin No. 40, Athletic Handbook for the Philippine Public Schools.

Bulletin No. 41, the Service Manual, a compilation of laws and regulations affecting the bureau of education.

Bulletin No. 42, Intermediate English II, for use in connection with the correspondence-study course.

Bulletin No. 43, Catalog of the Philippine School of Arts and Trades, published in March, 1912.

Bulletin No. 44, Libraries for Philippine Public Schools, will be in print shortly.

In addition to these bulletins the bureau has published the Eleventh Annual Report of the Director of Education, a seventh civico-educational lecture on coconuts, Volume V of the Teachers' Assembly Herald, and a statement of organization, aims, and conditions of service in the bureau of education. Four text books for use in the secondary schools have been printed: Commercial Geography, the Materials of Commerce for the Philippines, an Introduction to the Study of Colonial History, written from a Philippine viewpoint with reference to the objects and problems of colonization, a volume of Selected Short Poems by Representative American Authors, and a book containing Macaulay's "Samuel Johnson," Emerson's "Self-Reliance," and Lincoln's "Gettysburg Address." The publication of The Philippine Craftsman, a monthly magazine devoted entirely to the advancement of industrial instruction in the public schools, has also been undertaken.

The following statement of the director of education will be of interest:

During the past year the director of education has been in correspondence with the school authorities of a number of other countries, particularly those located in the Tropics, and enjoying practically the same conditions as obtain in these islands. Letters requesting information on 13 topics were sent out to about 70 countries, from nearly two-thirds of which replies have been received. A careful review of the correspondence shows that it is the aim of nearly every one of these countries to make education general, but as a rule the percentage of population attending school is much lower than in the Philippines. In very few cases is special attention being given to industrial education. The elementary schools are seldom considered in the plan of industrial instruction, the attention generally being confined to advanced technical and agricultural subjects. Much more stress is laid upon athletics and physical training in the Philippines than is given in other countries generally. The interest that the Filipino people take in public instruction is much greater than is apparently the case elsewhere. Reports seem to indicate that in a number of countries, at least, lack of interest, but actual opposition is manifested.

## PRIVATE SCHOOLS.

The work of standardizing the courses given in private schools has been continued. The course of study now offered in all approved schools and in the majority of those which have not yet received Government sanction is similar to that of the public schools. The degree of bachelor of arts is given at the end of a 13-year course. This course of study was prepared by the secretary of public instruction at the beginning of the school year 1910-11, and has since remained practically unchanged.

Decided progress has been made in improving the teaching force in private schools. Most new appointees during the past year were high or normal school graduates, and in the large majority of private schools primary and intermediate instruction is now given either by such graduates or by teachers who have been trained in other public schools. Almost without exception in the higher grades of the private schools, American teachers give the instruction in English. In several of the colleges the entire faculty is composed of American or English-speaking European teachers.

During the year nine private institutions were approved by the government; one being authorized to confer the degree of bachelor of arts on its graduates; two to grant high-school diplomas; four to give intermediate and two primary certificates. This makes a total of 25 private schools which have adopted the course of study prescribed by the department. These schools are using modern texts in most subjects and are doing work which reaches the standard set by the government. There are yet five or six colleges which will probably be able to reach this standard during the coming year.

In addition to the schools referred to, there remain some 28 or 30 which are endeavoring to bring their standards up to that of the approved colleges. Six or eight of these will eventually succeed, but it seems improbable that the great majority will ever approximate this standard. They may be found in Manila and many provincial capitals. As a rule they are conducted in private dwellings and present little semblance to a school or college. The masters appear to have little conception either of grading and classification or of school work in general. Entering pupils choose their own grades, and boys of 10 or 12 years study subjects which properly belong in a college course. The probabilities are that if a pupil only pays the fees he is permitted to enter whatever grade he pleases. Students are found in these schools who have left better institutions in order to skip two or three grades by taking subjects which they are not qualified to study. The number of these schools is, however, decreasing. As the people learn more and more about instruction, they demand proper training for their children and any school which can not reasonably guarantee value received will not be able much longer to receive the patronage of the Filipino people.

Improvement in school grounds and buildings has also been made. La Concordia, Centro Escolar, Burgos Institute and La Salle have between them expended something over ₱200,000 in repairs and construction. Several projects for the erection of modern school buildings are now under consideration, and in most cases the schools will be moved out of the crowded districts to places where suitable

ground can be secured. As soon as the plans have been approved, the Jesuits expect, at a cost of ₱2,000,000, to erect their new Ateneo at Palomar Park, where they will have a campus of several acres. The Dominicans expect to spend, on the outskirts of the city, over ₱1,000,000 in new buildings for the University of Santo Tomas. The Liceo is also planning a new college outside the city. The Greater Liceo, as it is called, will, for the present at least, then become the greatest purely Filipino institution in the islands. Its directors intend to introduce secondary technical courses and to make the college in all respects thoroughly modern. Silliman Institute at Dumaguete is also preparing for large extensions. Over ₱100,000 in cash are to be spent for materials, the work to be done by students in the industrial college. At Jaro, in the Province of Iloilo, Bishop Daugherty has just completed the buildings of one of the finest colleges in the islands. Santa Scholastica Convent has secured a large tract of land in Singalong, where buildings for a new school will be erected, at an estimated cost of ₱250,000, the work to begin within a few weeks.

Thirty-four private schools are giving all primary and intermediate courses in English; nine are giving primary, intermediate, and high school courses in English; and two are giving all the courses in this language. Three years ago with but two or three exceptions these colleges did nearly all work in Spanish. In schools where instruction is given in English, English textbooks are used and English is used even outside the classes. The progress made in the use of English in the private schools has been, as may be seen, quite satisfactory. The colleges have done as much as they could to introduce this language without working hardships upon students. In many cases English can not be used in the higher grades until the students who took their preparatory work in Spanish have been graduated.

Until a comparatively short while ago, with few exceptions, only cultural courses were given in private schools, and most of their graduates looked forward to entering the practice of law. This has led to an overproduction of lawyers, many of whom are but poorly qualified and eke out a poor existence, while they could have become producers of wealth in the islands had their training been different.

The emphasis placed on industrial education in public schools has led to its gradual spread to the private schools, although the development therein will be slow until the public patronizing these schools realizes that its sons and daughters must do the work and take the courses which make for the best citizenship. The Belgian Sisters have established schools in Manila, Tagudin, and Bontoc, and offer to all their students a practical course in lace making. During the year a quantity of their lace has been sold in Manila and in foreign markets. These sisters have brought with them the ideas and experience of years of lace making and industrial work in Europe and India, and have been distinctly successful in their efforts to establish and build up one industry. They are planning to open schools in other of the larger cities of the islands.

The colleges for men have given but little attention to athletics, chiefly because proper grounds and equipment are lacking and their students had little physical instruction during their early years. A few have organized baseball, volley-ball, and basket-ball teams

and are doing some track and field work. Silliman Institute and La Salle College are distinct exceptions. These two schools have well-organized teams and lay particular emphasis on all branches of athletics.

During the past year the three hundredth anniversary of the founding of the University of Santo Tomas was celebrated in Manila. This, the oldest university under the American flag, is the only private university in the Philippines and has wielded a powerful influence over the lives of the Filipino people. From its classes have come many of the most distinguished citizens of the islands.

The enrollment in private schools of the better class has continued to increase since the work of standardizing the courses was undertaken by the department. During the year 7,882 students were in attendance in these schools, an increase of 888 over the preceding year. The reports from the various schools throughout the islands show that 424 of the 667 teachers employed are prepared to give instruction in English.

## BUREAU OF AGRICULTURE.

### PERSONNEL.

On September 13, 1911, Dr. George E. Nesom resigned the directorship of the bureau and Mr. Frederic W. Taylor was appointed director of agriculture. Mr. Taylor arrived in the islands and entered upon the duties of his office last October. Until Mr. Taylor's arrival Mr. H. T. Edwards, assistant to the director, was in charge of the bureau.

There has been an increase of 1 American and 22 Filipinos in the classified positions.

### GENERAL.

During the year the islands were visited by a prolonged drought which affected the growth of all staple crops and caused suffering and want in localities where the people depend for their welfare upon the success of a particular product. In those where several crops are grown conditions were much more normal. As a rule in the Philippines a particular district is known for a particular crop, such as Cagayan and Isabela for their tobacco, Negros for its sugar, and so on; and the people are accustomed to raise only that crop and have neither seed for nor interest in others. A year, therefore, in which their crop is a failure is one of acute distress. The policy of the bureau has been to encourage the people to plant diverse crops so that in case the tobacco or sugar should fail there might be corn or rice or some other food or revenue-producing staple with which they might tide themselves over the period which must elapse before the next regular crop is harvested.

The long dry season was accompanied by unusually large swarms of locusts and other pests because of the failure of their customary food. It was particularly severe in its effect on the rice crop, which was probably 40 per cent less than that of the preceding year. Sugar was not so badly affected and showed a satisfactory increase both in quantity and value of exports. There was a small decrease in the quantity of hemp, but an improvement in quality led to a slight increase in the value of that exported. Although the amount of

tobacco produced was somewhat less than that of the preceding year, there appears to have been some improvement in its quality. The partial failure of the rice crop resulted in a large increase in corn planting, and while the crop of last year was affected by the drought the indications are that the 1913 crop will be the largest in the history of the islands. Copra was the banner crop, and localities which raise large numbers of coconuts have enjoyed unusual prosperity. For the first time this product led all others in the value exported.

The most important work which the bureau has in hand is the eradication of rinderpest, and the corresponding work of encouraging the development of the herds which were so largely destroyed by disease. Of next importance is the perfecting of a satisfactory method for bringing to the people a knowledge of its work so that larger and better crops will be grown. It is now endeavoring to keep in touch chiefly through field demonstrations. Two projects of this character are already well under way and others are planned. The first cooperative demonstration station will shortly be established in Iloilo, and it is hoped to multiply these stations until there is at least one in each province.

#### DIVISION OF ANIMAL HUSBANDRY.

This division is charged with the supervision of live stock belonging to the bureau and with the purchase in the islands of stock for the government. It arranges for live-stock exhibits and has control of public live-stock breeding.

*Public live-stock breeding.*—During the year stallions have been available for public use, without charge, in 15 provinces and sub-provinces and 695 mares have been bred. Stallions, bulls, boars, and billies are always available for service at the Alabang Stock Farm and the La Carlota Experiment Station; and at other stations some animals are kept for that purpose. The public has not taken readily to the use of government animals for breeding purposes, because the overcoming of its prejudice against new methods is slow; but their use is increasing, and in those districts where animals have been kept for a long time there is a marked improvement in the quality of the live stock.

*Live-stock exhibits.*—A large live-stock and poultry show was held in connection with the Philippine Exposition at Manila during the month of February, and a provincial live-stock show at Virac, on the island of Catanduanes, in July, 1911. The bureau also exhibited live stock at the Iloilo fair in December, 1911.

*Alabang Stock Farm.*—The Alabang Stock Farm has been noticeably improved during the year, while the cost of its maintenance has been reduced. One thousand four hundred and eighty-five meters of new road, one bridge, two culverts, and a 100-ton silo of reenforced concrete were constructed. The manufacture of cement posts for fencing has been continued. Thus far these posts have proved thoroughly satisfactory. They not only cost less, but they are more durable than those made of hardwood. There were under cultivation approximately 50 hectares of land, on which, in a large part, forage crops for the feeding of farm and laboratory animals were grown. Special attention was given to the production of hay, 12 tons of Rhodes grass being cured and baled. The condition of the horses is

satisfactory and the cattle herds have done well in spite of the drought which, in a large part, destroyed the pasturage. Good results have been had from the Chinese cattle and their crosses. They make excellent work animals and are easily subsisted on the natural range grasses. The Indian herd has also done well. They, too, are good foragers, but owing to their roving disposition are not so easily herded as are the Chinese cattle. For hauling they are superior to the latter. The demand for well-bred pigs has thus far exceeded the available supply, and the number of breeding sows will be increased.

*Trinidad Stock Farm.*—The maintenance of animals which can not subsist on the country has proved expensive in the Benguet hills because of the cost of transporting forage. For this reason most of the horses were removed to other stations and little work done at Trinidad. At the close of the year there were 4 horses and 95 cattle at the station.

*La Carlota Experiment Station.*—The cattle at La Carlota did well, subsisting entirely on native grass, which kept them in excellent condition. The horses showed considerable improvement. The natural increase at this station was: Horses, 10; cattle, 39; carabao, 7; goats, 9; swine, 12.

*Ilagan Tobacco Station.*—The Ilagan Tobacco Station has, in addition to its other work, undertaken the breeding of stock, and to this end has been supplied with one American stallion, one Nellore bull, one Berkshire boar, and three Berkshire sows.

#### VETERINARY DIVISION.

On June 30 last the force of this division consisted of 41 veterinarians, 64 American live-stock inspectors, 223 Filipino live-stock inspectors, 1 pathologist, 1 veterinary entomologist, 4 American clerks and stenographers, and 2 Filipino clerks and stenographers—a slight reduction from the force on duty at the beginning of the year.

*Rinderpest.*—Animal disease is now a comparatively small factor in the industrial economy of the islands, but potentially it is a very large factor. During the year only 4,312 new cases of rinderpest were reported among the cattle and carabao, with 2,847 deaths. The census of 1903 states that during the year 1902, 629,176 cattle and carabao died of disease, chiefly rinderpest. The following table shows the known amount of infection at the beginning and end of the year:

Week ending—	New cases per week. <sup>1</sup>	Deaths per week. <sup>1</sup>	Provinces infected.	Municipalities infected.	Barrios infected.
July 1, 1911.....	254	230	17	64	170
June 29, 1912.....	23	19	11	34	69

<sup>1</sup> Cattle and carabao.

The comparatively small number of deaths from rinderpest has retarded but little the rapid increase in the herds of carabao and cattle. The percentage of deaths from this source compared to births is almost negligible. This does not mean, however, that our work has ended. If the efforts of the government were to any considerable extent relaxed and the disease allowed to spread, whole provinces



would again be swept clean of their work animals. The existence of disease also hinders capitalists from investing large sums in cattle raising in the Philippines, and the chief work of the bureau will not be ended until rinderpest has been completely eradicated from the islands and all sources of outside infection eliminated.

The method followed in combating the disease was the same as last year—that is, through strict quarantine—and the satisfactory results seem to justify the belief that this is the only feasible method for making headway against rinderpest. Effective quarantines have been possible through the cooperation of the military authorities. The division commander, Maj. Gen. J. Franklin Bell, has placed at the disposal of the government a large number of scouts, who have rendered valuable service. On the last day of the year there were on duty in this work 30 officers and 1,390 enlisted men, belonging to 13 companies of the Fifth, Seventh, and Ninth Battalions of the Philippine Scouts. Not only have the men given splendid service, but their officers have shown enthusiasm, patience, and tact in discharging duties which were often disagreeable, and their cooperation could not have been fuller had they been an integral part of the organization of the bureau of agriculture. Provincial officials and, to a considerable extent, the people in general are coming to appreciate the necessity of quarantines and are cooperating in a measure which makes effective work easier as the campaign progresses.

The following table shows the extent to which disease was prevalent during the last eight days of the year:

	Suspects.		New cases.		Convalescents.		Deaths.	
	Cattle.	Carabao.	Cattle.	Carabao.	Cattle.	Carabao.	Cattle.	Carabao.
Pangasinan.....		5		6		5		1
Zambales.....		5		2		4		2
Pampanga.....		6		9		3		5
Rizal.....		9		5		7		2
Laguna.....		3		2		13		2
Capiz.....				1		4		1
Iloilo.....		3		3	4	20		7
Total.....		31		28	4	56		20

It is only fair to state that this table is not conclusive. There is, without doubt, some unreported disease, particularly in the northern part of Luzon. From time to time territory adjacent to the foothills of Benguet is infected by animals coming from the north, although every effort is being made to prevent their introduction from this territory until the bureau has had an opportunity to move its force into northern Luzon and stamp out such disease as exists there.

*Other diseases.*—Foot-and-mouth disease was imported from Indo-China during the year, but its spread was promptly checked. No cases of contagious pleuropneumonia have been found outside of Sisiman matadero, which seems to indicate that the prompt measures taken on the discovery of this disease some two years ago were successful in preventing its introduction. During the year scabies, or mange, were found in carabao received from Formosa but no cases have developed outside the quarantine yards. Surra still

exists in the Archipelago. Glanders, anthrax, and similar diseases also exist, but to no large extent.

*Quarantine.*—The apparent impossibility of preventing the introduction of rinderpest through animals coming from China has led to a continuance of the 90-day quarantine against Chinese ports, and although the matter has been gone into with the utmost thoroughness in an endeavor to devise a method which would permit the importation of cattle from Hongkong, no other plan has been found which would provide any reasonable assurance of immunity against reinfection. Rinderpest was introduced in cattle from French Indo-China, causing a considerable outbreak in the Province of Iloilo, and subsequent outbreaks in Capiz were also directly traceable to these cattle. Prior to their shipment, animals imported from French Indo-China had been examined by a veterinarian of the bureau of agriculture maintained there for that purpose and by French veterinarians, and had undergone a 10-days' quarantine on their arrival in the Philippines. In spite of these precautions rinderpest was introduced and nothing remained but to put in effect a 90-day quarantine on shipments of cattle from this territory.

Cattle quarantine stations are maintained in Manila and Iloilo, that in Manila being located at Pandacan on the Pasig River. The cattle brought in are loaded directly onto lighters and taken by water to the station, where they are kept during their period of quarantine, after which they must be removed from the station, no sales of stock being permitted there. The station at Iloilo is entirely inadequate and steps are being taken to provide a more suitable site.

*Meat inspection.*—The bureau of agriculture inspects animals presented for slaughter in the abattoirs maintained in Manila and Sisiman. The system in operation is based upon that in use in the United States, and it is believed that the ante mortem and post-mortem inspections which are now conducted by veterinarians who have been specially trained for this work are as thorough as could be desired. In the Manila matadero 76,336 animals were slaughtered, of which 1,022 carcasses and 77,358 parts were condemned. At Sisiman, where only animals from Australia are killed, 8,104 cattle and 36 sheep were inspected and 167 carcasses and 5,893 parts condemned.

*Simultaneous inoculation.*—During the year simultaneous inoculation was practiced on 1,205 cattle and carabao, of which 310 died, a loss of about 25 per cent. These figures do not encourage the belief that it would be feasible to practice simultaneous inoculation upon animals received from infected countries.

#### DIVISION OF AGRONOMY.

The greater part of the work of this division has had to do with rice, forage crops, and hay grasses.

*Rice.*—Extensive experiments with both upland and lowland rice have been carried on in the endeavor to determine the varieties which produce the best crops in the Philippines. A full report of this work is now being published as Bulletin No. 22 of the bureau of agriculture, and can be obtained on application to the bureau.

The value of the rice imported into the Philippines last year amounted to ₱21,139,898. This year it is believed the figures will be even larger. Perhaps our greatest single economic problem is that of producing enough rice to feed the country. There is no reason why this can not be done. Land is available everywhere; there are work animals in plenty, and the people understand the culture of rice more universally than that of any other one crop. Plans, somewhat indefinite as yet, are being formulated by which it is hoped that the people will be induced more and more to raise rice, with the result that in a few years the Philippines, which are to so large an extent agricultural, may cease the importation of this staple food.

*Forage plants.*—The best results in making hay have been obtained from Rhodes grass (*Chloris gayana*). Extensive experiments with this grass have been carried on at Alabang and in specially prepared ground at San Miguel, Tarlac, although operations at the latter station were hardly extended enough to be conclusive at the time of writing this report. At Alabang the grass was grown under irrigation and it is believed that if it is sown in October two or even three cuttings should be obtained during the dry season, in which only can it be cured. More conclusive results will be had from experiments conducted during the present year. The hay from this grass appears to be equal in every way to timothy and should be worth at least ₱60 a ton on the Manila market. Guinea grass continues to give excellent results for green forage.

As I have said in another report, a very large amount of money is each year sent from the country to buy forage for its horses and cattle. It has now been shown that satisfactory hay can be raised in the Philippines at a cost which will enable the producer to market it for a lower price than that paid for the imported product and yet allow him a reasonable profit. The Alabang Stock Farm this year raised on a comparatively small acreage almost enough forage for its own animals, and there is no reason why, within the next few years, the government should not raise all the forage it needs. There still remains the Army, which is the largest single consumer of imported forage; and the military authorities are cooperating with the officials of this government in the endeavor to encourage the production of a satisfactory hay by the farmers of the Philippines.

Experiments with a substitute for imported grain have been continued at the Pandacan forage factory and they are now extended enough to permit some definite statement of results. Grain ration known as No. 14 consists of 61.5 per cent corn meal, 15 per cent Manchurian bean meal, and 23.5 per cent wheat bran. It has about the same nutritive value as oats. It has been used particularly for horse and mule feed, although equally good results have been obtained in feeding it to cattle, hogs, and poultry. The corn used at the factory was produced in the islands and more than 60,000 kilos of corn meal were sold. The increasing demand for corn meal and for mixture No. 14, which contains so large a percentage of this cereal, seems to point to the conclusion that in time the farmers of the islands may produce a large part of the ₱2,000,000 worth of stock feed which is annually consumed here.

*Sugar cane.*—Extensive experiments with imported sugar canes have been made during the year, and at La Carlota about 40 hectares

of cane were harvested with a production of some 2,500 piculs of sugar. The quality of Philippine sugar cane is fairly satisfactory, but milling operations are still so crude that a very low-grade sugar is produced. This puts our planters at a distinct disadvantage in competing with those of other countries, and the Government has in every proper way encouraged the importation of modern machinery. One large modern mill has already been erected and others are in process of completion. The handsome profits which followed the opening of the American market to Philippine sugar greatly stimulated its production and there is little doubt that this industry will of itself continue to prosper and the quality of the product to improve. The bureau of agriculture will continue its experiments with canes and with the methods of combating pests which attack them.

#### DIVISION OF HORTICULTURE.

In addition to purely horticultural work, this division has to do with seed and plant introduction and distribution, entomological work, and exercises a general supervision over the Singalong Experiment Station, the Lamao Experiment Station, the Trinidad Garden, and the Ilagan Tobacco Station.

*Seed and plant introductions.*—The principal introductions during the year were 2,000 plants of Hawaiian pineapple and 1,000 plants of Red Spanish pineapple. Some 27 varieties of native citrous trees have been collected and about 50 varieties of oranges, pomelos, limes, and lemons introduced from foreign countries. The efforts to introduce the avocado, or, as it is more commonly known, the alligator pear, have been continued and some 200 seeds received from Honolulu in November have been planted at Lamao. Budwood of several varieties was obtained from California and Hawaii and for the first time in the history of the islands successfully budded onto seedlings at that station.

*Seed and plant distribution.*—The former policy of furnishing large collections to a few applicants was this year changed to that of furnishing small collections to all applicants. This change led to a phenomenal increase over 1911. In that year about 5,000 allotments of vegetable seeds were recorded; about 50,000 were made during the past year. From August to March from 60 to 100 requests a day were received by mail alone, and it is estimated that nearly half a million individual packages of seeds were distributed. The school gardens of the bureau of education have immensely increased the planting of vegetables, and this as much as anything else has led to the large increase in the demand for seed.

Some 60,000 to 75,000 mulberry cuttings were distributed during the year, as against some 20,000 in the previous year. A small charge for these was made to private parties. About 2,000 packages of selected papaya seed were given away and the results of this work can be seen in the quality of the papayas now offered for sale in our markets. A considerable part of the seed distributed was raised by the bureau.

*Entomological work—Locusts.*—At its last session the Legislature made an appropriation for the definite purpose of combating the ravages of these insects and an entomologist was obtained and placed in direct charge of the work, which is carried on through provincial locust boards. An outbreak in Cebu was the worst single attack

reported for several years. The swarm covered about 15 square kilometers of territory and swept practically across the island. The presence of the entomologist in Cebu was of great benefit and resulted in saving tens of thousands of pesos worth of property. During the year outbreaks were reported in 15 Provinces. With few exceptions they were promptly controlled.

*Miscellaneous pests and diseases.*—The attacks from rats were more severe than usual. Good success in exterminating them was had with arsenic. Serious losses to maize, rice, and young cane came from the worst plague of caterpillars which has been reported since 1910. During the year some 400 communications relative to plant pests and diseases were received and answered.

*Trinidad Garden.*—The Trinidad Garden is maintained for the purpose of testing temperate and tropical vegetables as well as supplying the local demand for vegetables at Baguio. Efforts have been made to have private parties undertake this latter work and it is hoped that the growing of vegetables for market by the Government may be completely ended within the next year or two.

*Lamiao Experiment Station.*—The experimental work in horticulture has been largely concentrated at Lamiao, which has been considerably improved. Large numbers of papayas have been bred and extensive tests with pineapples undertaken. One of the most important discoveries made by the horticulturist was the possibility of vegetative propagation of cacao by buddage. A considerable area is devoted to nurseries and small plots of the principal tropical fruits, such as anonas, avocados, guavas, chicos, mangos, tamarinds, etc.

*Singalong Experiment Station.*—During the year more than a third of the Singalong Station was transferred to the city of Manila. There is a real need for this station; it serves as a central point for handling live stock which must be brought to Manila for transshipping, and for preserving until they can be transferred to a permanent location plants and seeds which are received from abroad. Its largest single crop continues to be Guinea grass.

*Ilagan Tobacco Station.*—During the year the superintendent's house at the Ilagan Station was finished and several smaller buildings constructed. More experiments with tobacco were conducted this year than have ever been carried on before, although the season was rather unfavorable. Plans were made, however, and the ground laid out so that the experiments of the present year should be particularly valuable to tobacco growers. The greatest practical value obtained from the station was in the cooperative work carried on throughout the entire Cagayan Valley. Particular attention was given to the cleaning of seed; and more than 1,700 planters took advantage of the opportunity offered them. In the single municipality of Ilagan there are now 613 curing sheds, where practically none existed a year ago. Emphasis has also been laid upon the multiple crop system; that is, that planters should raise other things than tobacco.

#### FIBER DIVISION.

During the year this division made a study of fiber and other industries of Java; made exhaustive investigations in hemp, maguay, and sisal; and devoted itself to the particular study of kapok and of introducing cotton into the Philippines.

*Hemp.*—The study of this, our most important fiber, which was begun in 1909, was continued. As a result of its investigations, the bureau has endeavored among other things to discourage the general practice of planting camotes as a cover crop in fields of young hemp. Exact figures showing the production and exportation of hemp during the year are not yet obtainable, but it is believed that the exports are somewhat less than last year, although somewhat greater in value. Because of defective methods of cleaning and preparing for market, the bulk of the fiber produced is greatly inferior to what should be the standard grade. The work of persuading growers to produce a better quality has not been encouraging. In many sections they claim that they are at the mercy of the local buyer and, so far as prices are concerned, it makes little difference what grade of fiber is produced. The work will be continued, however, and it is hoped that little by little conditions will be bettered. The preparation of knotted hemp for export has been started and the industry seems to promise rapid development and good returns. In time knotted hemp should become an important export.

*Maguey and sisal.*—Not a great while after maguey had come to be a product of importance, there came a great decline in the price of hemp and other cordage fibers. This decline gave maguey production a setback from which it has not yet recovered. Reasonable profits from its growing can be made, particularly if proper methods of cutting and cleaning are followed, and the bureau will continue its work of introducing these methods.

*Kapok.*—Particular study was made of the market for kapok during the year and the results communicated to the growers. Special attention was given to the question of machinery, and another year should see considerable growth in the production of kapok for export.

*Cotton.*—Only a small quantity of cotton is now grown in the Philippines, but the bureau has, during the year, gone into its production with a view to determining whether it would be advisable to encourage the planting of this crop in an effort to supply the local demand for raw cotton in the islands. The investigations are still inconclusive.

#### DEMONSTRATION AND EXTENSION WORK.

Agricultural extension work was first undertaken in 1907 with the appointment of a superintendent of agricultural extension work. For three years it was confined largely to an investigation of Philippine agricultural conditions. During the year 1911 a lecture campaign was organized and carried out in 18 provinces. The work of last year was directed toward the establishment of cooperative demonstration projects in several different provinces. The difficulty is, and has been, to secure competent men who are willing to remain in one district sufficiently long to get results. In the central office this work is confined largely to the distribution of printed matter and the preparation of the permanent mailing list. The central office also largely prepared and installed the agricultural and horticultural exhibit at the first Philippine exposition, held last February. Cooperative work with the Philippine Railway Co. is being carried on in Cebu, Iloilo, and Capiz Provinces. Some 23,500 ears of selected seed corn were purchased by the bureau and paid for by this company, to be used on 25 demonstration plots. Considerable work was also done

in Batangas, the farmers showing a commendable interest, and little difficulty was found in obtaining demonstration plots in the different municipalities. During May nine plots had been prepared for planting and five actually planted, and at the close of the year the work was being carried forward as rapidly as possible. Corn and rice are the two crops so far taken up, but it is planned to plant sugar cane in the sugar districts. Seed have been distributed and some extension work done in the Subprovince of Amburayan. Arrangements have been made to establish a demonstration project in the Mountain Province under the supervision of an experienced American inspector. In Bohol work was started in May and during that month and June the inspector assisted in laying out school gardens and in the fight against locusts.

The field for the development of demonstration and extension work in the Philippines is practically unlimited and as rapidly as our resources will permit a demonstration and extension project should be begun in each province. The bureau's chief difficulty has always been actually to bring the results of its investigations to the knowledge of the people and in this way improve agricultural methods. Personal contact counts for far more than the dissemination of printed reports and striking improvement has been found in those localities in which practical work was carried on.

#### PUBLICATIONS.

The chief publication continues to be the Philippine Agricultural Review. The two most noteworthy changes in this publication were the elimination from its pages of clipped articles and the publication of special numbers devoted largely to a particular subject. The Review has now been put on a subscription basis although enough free copies are sent out to the towns of the islands to place the information contained in the paper at the disposal of anyone who wishes it.

The following bulletins, circulars, and reports were issued during the year, copies of which can be obtained on application to the bureau:

- Bulletin No. 18, The Mango. P. J. Wester.
- Bulletin No. 19, Experiments on the Efficiency of Anti-Rinderpest Serum. A. R. Ward and F. W. Wood.
- Bulletin No. 20, Notes on the Muscular Changes Brought about by Inter-muscular Injection of Calves with the Virus of Contagious Pleuro-pneumonia. W. H. Boynton.
- Bulletin No. 21, A study of the Normal Blood of Carabao. W. H. Boynton.
- Special bulletin, The Sugar Industry of the Philippine Islands. G. E. Nesom, four collaborators.
- Special bulletin, A Handbook on the Sugar Industry of the Philippine Islands. G. E. Nesom, H. S. Walker, three collaborators.
- Circular No. 2, El Semillero de Tabaco. R. W. Rowe.
- Circular No. 5, The Tobacco Beetle. D. B. Mackie.
- Circular No. 6, Cultural Directions for Papaya (Tagalog, Cebuano). P. J. Wester.
- Circular No. 7, Coconuts (Spanish, Tagalog, Pangasinan, Cebuano, English). O. W. Barrett.
- Circular No. 8, Locusts. D. B. Mackie.
- Circular No. 9, Directions for Planting Vegetables and Flowers (Tagalog, Ilocano, Pangasinan, Cebuano). P. J. Wester.
- Circular No. 10, Directions for Planting Forage Seeds and Roots. O. W. Barrett.
- Circular No. 11, Seed Cane Distribution. O. W. Barrett.
- Circular No. 12, Plant Pest Remedies. P. J. Wester.
- Circular No. 13, Rats. D. B. Mackie.
- Circular No. 14, Corn-blade Fodder (Spanish). C. M. Conner.
- Circular No. 15, The Mango. P. J. Wester.
- Reprint, The Rinderpest Problem. A. R. Ward.
- Reprint, The Propagation of the Avocado. P. J. Wester.

In conclusion, it may be repeated that the chief work of the bureau during the coming year must be the campaign against animal diseases, but it is hoped that this will be the last year in which it will be the work of paramount importance. Following this the chief development must come through cooperative field demonstrations.

#### BUREAU OF SUPPLY.

The purchases made by the bureau of supply during the year amounted to ₱7,700,417.31, divided as follows:

In the local market, Manila (61.28 per cent of the total).....	₱4,718,927.37
In the United States (36.86 per cent of the total).....	2,838,718.64
In all other foreign countries (1.86 per cent of the total).....	142,771.30
Total.....	7,700,417.31

If there is added the cost of the rice bought under the provisions of Act No. 2076, the total purchases amounted to ₱9,336,329.15. The sales, exclusive of rice, amounted to ₱7,518,357.20; of these ₱5,730,964.92 were to the various government bureaus and offices and ₱1,787,392.28 to the provinces and municipalities. The volume of business transacted this year was something more than 25 per cent greater than that of last year, and during the past five years the volume of business has almost doubled.

The gross earnings for the year amounted to ₱658,864.93, while the cost of operation was ₱421,194.72, leaving an apparent net gain of ₱237,670.21. Against this gain there must be written off the deterioration of stock on hand, of land and water transportation equipment, and to it must be charged the completion and equipment of the new warehouses, the erection of additional lumber sheds, and the cost of moving the stock to the new location.

The cost value of merchandise belonging to the bureau on hand at the close of business June 30, 1912, was ₱2,334,876.28. The percentage of operating expenses to the net cost value of sales during the year was 7.49, as compared with 6.30 last year. The increase was brought about by expenses incurred in handling rice under the provisions of Act No. 2076, for which reimbursement was not received, and by receiving and stacking a two years' supply of lumber in the new lumber yards.

#### PERSONNEL.

The regular appointments under the civil-service act were 6 Americans and 18 Filipinos, while 6 Americans and 10 Filipinos were separated from the service; 25 Americans and 53 Filipinos were given temporary and emergency appointments. As I have said, within the last five years the business of the bureau has increased almost 100 per cent, and there has been no corresponding increase in the personnel. In consequence the employees are badly driven, and it is difficult properly to transact the work of the bureau. A careful study of the present organization is now being made with a view to adjusting it to meet the greatly increased demands, and enough employees will be added to enable the purchasing agent to fulfill his duties promptly, expeditiously, and economically.



### LUMBER.

For many years the government purchased from time to time such lumber as it needed for its immediate requirements. The result was most unsatisfactory. The market supply of properly cured lumber was so small that unseasoned timber had to be used in construction work, with the result that doors and windows soon warped out of shape, floors had to be taken up and relaid, and much unnecessary expense was added to the cost of public works. To remedy this situation the establishment of a lumber yard was decided upon, and during the year six sheds, capable of housing about 3,000,000 board feet, were erected. Six more will be built this year. These sheds should enable us to keep on hand enough properly cured lumber to meet promptly our needs. The yard will be of particular value in enabling us to build expeditiously and at a minimum cost the large number of schoolhouses for the construction of which the Legislature has appropriated funds.

### TRANSPORTATION.

All hauling, except of coal and lumber, is now done by electric trucks at about one-half the cost of what it was when horses and wagons were used. The bureau also owns and operates a fleet of 16 lighters and 1 lorch, but depends on the bureau of navigation for its launch service.

### STANDARDIZATION.

The bureau carries so large a stock of staple supplies, chiefly because the government, in its various branches, uses such varied makes of standard articles, and the purchasing agent must furnish what requisitioners call for. If these articles were standardized, and only one brand was bought and furnished at a time, a large saving could be made each year. This matter has been the subject of discussion before, and it is hoped that during the coming year some definite scheme of standardization may be adopted.

### SURCHARGES.

One of the most annoying features of Government purchases is the number of requests which are continually being made by various bureaus for exemption from the payment of the duly authorized surcharge. The reasons advanced for exemption are varied, but the most usual is that due to special circumstances; the cost of making the purchase will not amount to 10 per cent. The theory under which the bureau of supply operates is that the surcharge will be fixed in an amount adequate to furnish during the year sufficient funds to enable the government to operate the bureau without making a definite appropriation therefor; and it by no means follows that in individual cases the surcharge actually represents what it costs the bureau of supply to make the purchase—sometimes it is more, sometimes less than the amount received, and it is not believed to be good administration to allow frequent exemptions.

With a total capital and surplus of ₱3,661,254.49, the bureau now has an overdraft of approximately ₱1,250,000, due primarily to the enormous increase of business without a corresponding increase in capital, but in a considerable part also to the fact that the law requir-

ing bureaus to take and pay for what they estimate their needs to be has not been strictly enforced, and to the further fact that there is much difficulty in effecting prompt payment for goods purchased. Chiefly because bureaus have not taken what they estimated they would need, there has been accumulated during the years of its existence, a larger stock than there is any need for, and steps should be taken promptly to reduce this stock, crediting the proceeds to the overdraft, and the amount of supplies kept on hand should be the smallest possible to enable the government to serve its needs with dispatch.

#### NEW BUILDINGS.

Two new reenforced concrete warehouses have been erected on the fill and will be ready for occupancy as soon as a satisfactory flooring has been laid. Some difficulty has been found in obtaining a proper foundation on this newly made land, but recent tests made by the engineers of the bureau of public works lead us to hope that the buildings will be ready for occupancy during the present year. These will relieve the bureau of the large rental which it is now paying. Additional reservation for the purposes of the bureau should be made not only of land adjacent to these warehouses, but a suitable frontage on the river should be set aside for its use in connection with the lumber and coal yards.

Of the total purchases made by the bureau during the year, something more than 68 per cent were from local dealers in the Philippine Islands. In making purchases local dealers have been and will continue to be given every consideration, but there are some things which it seems they cannot advantageously handle; for instance, structural steel products and iron roofing, textbooks for the bureau of education, printing and hospital supplies, and articles for the purchase of which the government is able to take advantage of the contracts made by the Government of the United States. The textbooks are published in the United States especially for the use of our schools, and contracts for an adequate supply are awarded to the various publishing companies, who either send representatives to the islands or maintain them here permanently. There are no exclusive agents for structural steel products and galvanized iron roofing, and by buying these articles directly from the manufacturers in the United States the government each year effects large savings, which are used either to increase the number of schoolhouses or to build more roads and bridges throughout the islands. In a great number of cases instead of buying articles directly from the manufacturers the government has bought from the manufacturers' agent in Manila, allowing him a flat profit of 10 per cent in connection with the transaction, in the endeavor to stimulate and encourage local enterprise.

#### THE DIVISION OF COLD STORAGE.

The gross receipts in this division during the year were ₱593,091.62, an increase of something more than ₱20,000 over the preceding year. Expenditures amounted to ₱475,613.31, leaving net receipts amounting to ₱117,478.32. The gross earnings from operations were ₱591,486.26, and the total expenses ₱438,191.42, leaving net earnings of ₱153,294.84. During the year the reconstruction of one corner of the ice plant was completed and similar work in the opposite corner has been begun. The reconstruction of the entire cold-storage

space is necessary, but inasmuch as this can be done only a section at a time, the work will require several years for completion. A new boiler has been received and will be immediately installed so that a repetition of the scarcity of ice and distilled water which was felt during the past hot season will not occur.

My recommendation heretofore made, that the ice plant be sold, was considered but not acted upon favorably by the Legislature at its last session. I am still of the opinion that the government should divorce itself from the business of manufacturing and selling ice and distilled water and providing cold-storage space for commercial firms, but if this may not be done, I recommend that the law under which the division of cold storage is at present operated be amended in some respects. In any event, ice and water should be furnished to all consumers at a price commensurate with its cost of manufacture, but not so low not as to allow private manufacturers of ice and distilled water to market their product at a legitimate profit. Ice and distilled water are absolute necessities in the Tropics, and every proper effort should be made to bring them within the reach of the poorer classes.

#### BUREAU OF PRISONS.

The prison population of the Philippines June 30, 1912, was as follows: Bilibid Prison, 2,640; Iwahig Penal Colony, 1,134; working at Corregidor, 998; working at Baguio, 130; Luneta police station, 24; San Lazaro Hospital, 56; Hospicio de San Jose, 8; Lolomboy Industrial School, 46; constabulary, 23; provinces (insular), 5; confined in provincial jails, 1,846; in all, 6,910, an increase over last year of 474. The number of insular prisoners was 5,071, as compared with 5,064 of the year before.

The crimes for which prisoners in greatest numbers are sentenced are adultery, rape, brigandage, embezzlement, homicide, murder, robbery, theft, violations of the cedula and opium act, and infractions of city ordinances. This year there was a decrease of about 35 per cent in commitments for adultery and a considerable decrease in convictions for brigandage. Nine hundred and forty-eight persons were sent to prison for theft, as compared with 750 during the preceding year.

#### COST OF MAINTENANCE.

The gross cost of the maintenance of each insular prisoner during the year was ₱126.993, a decrease of ₱5.205 as compared with the cost of the preceding year. The daily cost per prisoner at Bilibid Prison was ₱0.33295, a decrease of ₱0.01275. The daily cost of maintenance for each prisoner at the Iwahig Penal Colony was ₱0.405, a reduction of ₱.0142 from the cost of last year. The daily net cost of each prisoner at Bilibid was ₱0.306, and at Iwahig ₱0.369, a decrease of ₱.0289 and ₱0.0121, respectively. The average daily cost of subsistence for prisoners during the year was as follows:

	American and European.	Filipino and Asiatic.
Bilibid.....	₱0.333431	₱0.1411923
Bilibid Hospital.....	.2604949	.2804949
Iwahig Penal Colony.....		.15468435
Corregidor.....		.1371326
Baguio.....		.1626478

## BILIBID PRISON.

*Health and sanitation.*—General health conditions at Bilibid Prison have been excellent during the year. No outbreaks of disease were reported.

The work of segregating for special treatment tubercular patients was continued. The installation of the new sewer and drainage system for the prison has greatly improved its sanitation and should enable us to provide more adequate bathing facilities for the prisoners than have been possible in the past.

*School Work.*—School work has been continued throughout the year and an effort was made to give some instruction to all finally sentenced prisoners. One frequently finds a man who has been taught to read and speak English during the time he has spent in prison.

*Improvements.*—The buildings have been very generally repaired during the year and all roofs and frame structures repainted. A new roof was placed over the machine shops and four new guard towers built of angle iron and concrete.

*Industrial division.*—The output of the industrial division during the year was valued at ₱306,111.37, with a net profit to the prison of ₱46,343.68. The larger part of this work is done for the Insular Government, only ₱49,437.87 being charged against provincial governments and the general public.

An important departure was made during the year in establishing lace making and embroidery for women prisoners. The women have readily taken to the work, which not only adds to their cheerfulness and contentment but teaches them a useful occupation which they can follow after their release. During the year an average of 1,100 prisoners were assigned to the industrial division, for whose services ₱37,642.21 was paid to the prison division.

## PROVINCIAL PRISONS.

Since provincial prisons were brought into closer touch with the director of prisons and his associates some two or three years ago, they have shown marked improvement. Regular monthly inspections are made by constabulary officers, whose recommendations are carefully considered and such as call for action submitted to the provincial governors. A commendable spirit of cooperation has been shown by these governors, who, in most instances, take a real interest in their prisons and show a desire to improve them. Fourteen provinces have already sent their wardens to Bilibid for a course of instruction in prison management. Provincial wardens should be placed in the civil service, and continue in office irrespective of political changes in their provinces.

## IWAHIG PENAL COLONY.

On January 1 the superintendent of the colony, Mr. Carrol H. Lamb, resigned his position, and on May 6 Mr. C. F. Vance, the assistant superintendent, also resigned. These resignations have somewhat unsettled conditions at the colony, but immediately upon Mr. Vance's resignation Mr. Quillen, the second assistant director of prisons, was sent to the colony as acting superintendent and has managed it in a particularly efficient manner.

Conditions at Iwahig are better than they have ever been before. The preliminary work of clearing the land and providing quarters has been done, and the energies of the colony can be concentrated upon the growing of enough rice to support its population. An irrigation system has been worked out, and a large force of men is at work constructing paddies, on the greater part of which two crops of rice can be raised each year. This work should be completed within the next two years, and with the herds of cattle, the fish traps, and the large amount of vegetables which are raised, should furnish all the food needed by the colony. Attention can then be given to the construction of permanent buildings and the transfer of the colony to its new site.

The population of the colony on June 30 last was 1,244, including 1,059 penal colonists, 75 free and conditionally pardoned free colonists, 70 members of colonists' families, 23 officers and employees, and 17 members of officers' and employees' families. The work divisions with their average daily strength are as follows:

Farming.....	252.55	Health and sanitation.....	23.22
Settlers.....	67.03	Police.....	52.59
Outstations.....	46.39	Executive.....	47.04
Animal industry.....	51.63	Serving.....	87.13
Horticulture.....	27.53	Land transportation.....	32.23
Construction.....	36.93	Water.....	11.38
Forestry.....	56.11	Information.....	9.98
Roads and bridges.....	42.45	Band.....	15.30
Engineering.....	63.30	Miscellaneous.....	54.02

The total area at present under cultivation is 448 hectares. Of this, 250 hectares are in the farming division, 80 of which were cleared during the past year. About ₱5,000 worth of upland rice was produced. The growing of this crop has not been found profitable because of the great amount of work involved in keeping the field free from weeds.

The work of segregating prisoners affected by tuberculosis was recently undertaken, and will be carried forward to completion during the year. While plans have not been definitely worked out yet, it is believed that a substation near Puerta Princesa Bay can be established for these prisoners and the work of planting and caring for coconuts turned over to them.

It is thought that the name "Iwahig Penal Colony" is unfortunate and has had no little retarding effect on the growth of this colony, which is really only a great plantation employing forced labor and which should be considered as such. There are neither stockades nor guards, and a much clearer conception of the real status and purpose of this colony would be had if it were known either as the Iwahig Reservation or the Iwahig Plantation.

#### BUREAU OF PRINTING.

The work of the bureau of printing has been conducted in a thoroughly satisfactory manner and has been confined chiefly to printing and binding in more or less large quantities for the various bureaus and offices of the insular government, the city of Manila, and provincial governments.

The gross receipts for work performed amounted to ₱830,044.12 the cost of operation was ₱753,477.48, leaving a net profit of

₱76,566.64. Public documents to the value of ₱37,832.25 were sold during the year.

The quantity of paper consumed was as follows:

	Pounds.
Book paper.....	317, 307
Writing paper.....	366, 510
Bond and ledger paper.....	106, 727
Card and bristol board.....	54, 906
Envelopes (all kinds).....	4, 773, 325

This is a considerable increase over the amount of paper used during the preceding year.

At the close of the fiscal year there were on the rolls of the bureau 28 Americans, 434 Filipinos, 1 European, 2 East Indians, and 1 Chinese—a total of 466 employees, of which, it will be noted, about 93 per cent are Filipinos.

As an industrial school the bureau of printing has accomplished a great deal toward the training of young Filipinos along practical lines of trade. At the close of the year 112 apprentices were receiving instruction in every branch of letterpress printing and in the auxiliary trades, such as engineering, electrical, and mechanical work. This is an increase of 23 per cent over the preceding year. Fourteen apprentices were graduated as junior craftsmen during the course of the year.

The work of the bureau of printing has for some time been greatly handicapped by the lack of floor space in the present building; and with the constantly increasing business this has now become a serious drawback to the efficient and prompt execution of orders. The increased volume of work has necessitated the installation of additional machinery, which, on account of the already cramped condition, could not be accommodated with any degree of convenience or safety. This requires considerable overtime and night work, causes added expense, and is detrimental to the health and efficiency of the employees. In the last annual report of the department it was recommended that more suitable quarters be provided for this bureau, and this recommendation is herewith earnestly reiterated.

The reports of the several bureau chiefs contain detailed information regarding their bureaus.

Very respectfully,

NEWTON W. GILBERT,  
*Secretary of Public Instruction.*

To the PHILIPPINE COMMISSION.

*Manila, P. I.*



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# TWELFTH ANNUAL REPORT OF THE GOVERNOR OF PORTO RICO.

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GOVERNMENT HOUSE,  
*San Juan, Porto Rico, September 2, 1912.*

SIR: In pursuance of law I have the honor to present the following report of the governor of Porto Rico covering the fiscal year ending June 30, 1912:

## INTRODUCTION.

The general conditions in Porto Rico during and at the close of the last fiscal year can not be more concisely or accurately described than by repeating the opening paragraph of the annual report for the preceding year, as follows:

This period has been one of remarkable progress and signal achievement in both the public and private activities of the territory. At its close a greater degree of prosperity existed among the people than at any previous time; every industry was active and prosperous, furnishing employment for all who sought it; and the Government was better equipped with legislative authority to protect the interests and insure the equal opportunities of the people than ever before.

The advance made during the year under consideration, however, has been more general, marked, and important than that of any previous 12 months in the history of the island, either before or since American occupation.

Extracting from the year's record the most noteworthy and interesting features of development for the benefit of those merely interested in a general survey or as an index to the more detailed discussion of events which appears under appropriate headings in the succeeding pages, the following achievements and general improvements are noted:

The external commerce of the island was increased in value approximately \$14,000,000, the aggregate of the year being \$92,631,886, more than five times as much as in 1901 and an increase of 17 per cent over 1911, which is the highest percentage of increase recorded. Eighty-seven per cent of this trade was with the United States and 13 per cent with foreign countries. Porto Rico purchased in the mainland markets of the United States merchandise to the value of \$37,424,545, over \$2,700,000 more than during the preceding year. Of these purchases, \$31,000,000 represented manufactured goods, approximately \$5,000,000 rice and the remainder garden produce. In importance as a purchaser of American goods the island advanced to twelfth place, its purchases of such goods having been exceeded by but 11 countries of the world. Sales of Porto Rican products

in the United States, all of which would necessarily have been purchased in foreign countries had they not gone from this island, increased \$8,107,992, reaching a total of \$42,873,401. In spite of the heavy increase in purchases from the United States, imports from foreign countries, while relatively small, were the largest of record, amounting to \$5,501,928. The value of exports to foreign countries also exceeded that of any previous year and amounted to \$6,832,012, giving a total value to the foreign trade of \$12,333,940, an increase of \$3,000,000 over the foreign trade of 1911. Although the total external purchases of \$42,926,473 were, on account of the general internal improvements going on, larger than those of any previous year, they did not keep pace with the heavy increase in production and external sales, which aggregated \$49,705,413, leaving the unusually large balance of trade in favor of the island of \$6,778,940.

The year's record of internal business and industrial activities indicates sound development and substantial progress in every branch. The assessed value of the property of the island, which in 1905 was less than \$90,000,000, and \$163,000,000 as reported last year, has since increased 9 per cent and now stands at \$178,275,000, showing that, upon the very conservative basis of assessment for taxation, property values have been more than doubled during the seven years since 1905. The deposits of the recognized banking institutions of the territory have doubled since 1908 and while, owing to the industrial activity of the time requiring the close use of available cash resources, they show a slight decrease from last year, their total was more than \$10,000,000 at the close of 1911-12. In addition to this, a considerable sum, estimated at an equal amount, was held by private firms engaged in banking, but of which there is no public record. The organized banks of the Territory were regularly examined and found to be conservatively managed and in excellent condition. The annual underwritings of insurance, which showed the phenomenal increases of 37 per cent in fire and 89 per cent in life during 1911 were still further increased by 10 per cent in the former and 9 per cent in the latter. Forty new domestic corporations with paid in capital of \$1,500,000 and 12 foreign corporations with cash capital of \$352,940 were registered and authorized to transact business.

Conditions continued favorable to agricultural pursuits and the output of all products was substantially increased. The acreage under cultivation was again largely extended. Scientific study of agriculture, stimulated by the Federal and private experimental stations, the recently established board of agriculture, and insular fair, received more general attention, and as a result the methods of farming have been notably improved and their efficiency is being continually increased.

In 1901 the exports of sugar were less than 70,000 tons; in 1911 there were nearly 323,000 and during the year just closed 367,000, five times greater than they were 11 years ago, and they are still increasing, having advanced 10 per cent during the past year. The external sales of this product, which under local conditions of manufacture net the producers a fair but not excessive profit, yielded \$31,500,000 against less than \$5,000,000 in 1901, and constituted 63 per cent of the total value of the external sales.

The output of cigars was more than 14 times greater than in 1901, since which year it has continuously increased until the sales of 1911-12 reached 281,000,000, an increase of 7,500,000 over the preceding year. Of these, 170,000,000 were consumed upon the mainland and 111,000,000 in Porto Rico at satisfactorily profitable prices, the demand exceeding the supply. Less than one-fourth of the tobacco crop is shipped in the leaf, the remainder being shipped in manufactured form. This industry contributed \$7,406,841, or 15 per cent, toward the total receipts from external shipments.

The coffee crop of 1912 was the largest in the history of the industry and sold at profitable prices, substantially a third higher than those of the year 1909-10 and several years preceding it. The value of coffee sold abroad during 1911-12 was \$6,754,913, furnishing one-eighth of the receipts from foreign commerce. With the prosperity attending this industry it is being extended throughout the mountains of the island, the soil and climate of which are especially adapted to the successful culture of the highest grades of coffee to be found in the world. Heretofore this product has gone principally to France and Cuba, where it is highly prized by the connoisseurs of those countries. Porto Rican coffee has never been known commercially in the United States, because, first, it commanded a ready market at the highest prevailing prices abroad, and, second, the small quantity sent to the United States has not been placed upon the market in form to be identified. It is now, however, being introduced into the American market through the commercial agency of the Government of Porto Rico at No. 569 Fifth Avenue, New York, and may be purchased of the principal grocers of New York City in hermetically sealed tins under the special guaranty of the Porto Rico Association. The government has taken an active interest in this undertaking, through its commerce commission, in the belief that if it were known that one of the finest coffees produced in the world is grown on American soil it would be appreciated by American consumers looking for the best and find a steady demand in the home market where it will not be subject to foreign tariff caprice.

The shipment of fruit for external markets, which became of commercial importance for the first time during 1903, was increased in value during the past year to \$2,377,762. The fruits now successfully raised and profitably marketed are oranges, pineapples, and grapefruit, which, due to their superior quality, find ready sale wherever offered in the United States. Fruit raising in Porto Rico is rapidly becoming one of the principal industries of the Territory. The producers are cooperating to secure the highest efficiency in packing and marketing and are receiving the active assistance of the Porto Rico Commerce Commission in securing the recognition to which the quality of their products entitles them. The first community packing house was erected during the last year and is now in successful operation, giving to its patrons every expert service required from the field to the market, including picking when desired by the owner.

While as yet of comparatively small total value the production of coconuts is one of the most profitable industries of the island and must greatly gain in importance as the waste lands are brought under cultivation. The value of coconut shipments during the past



year showed a continuation of the gradual increase they have received during recent years and reached \$300,000.

In harmony with the greater business activity and enhanced values, the total net revenue receipts from all sources and for all purposes increased 10 per cent over those of 1911 and aggregated \$6,665,348.55, the largest revenue collections of any one year in the history of the island. Although the extension of public services required larger disbursements, the available cash balance in the treasury was increased from \$1,214,000.67 at the beginning to \$1,794,555.46 at the close of the fiscal year, ending June 30, 1912. On that date the total net bonded indebtedness of the Territory was \$4,139,760.40, but \$3.70 per capita and 2.5 per cent of the assessed value of the property, while the per capita wealth is conservatively estimated at \$275. Thus is shown a remarkable increase in the public wealth and available cash resources of the government and at the same time a considerable reduction in the public debt. In 55 of the 71 municipal districts (comparable to counties) not a dollar of the delinquent taxes remained to be collected, and but six one-hundredths of 1 per cent of the taxes due and collectable were unpaid in the entire island, a most remarkable showing, both of the generally prosperous condition of the property owners of all classes and the efficiency of the revenue collecting organization under the insular treasury department.

The advance in educational work is again apparent in an increase of 10 per cent in the total school enrollment. The number of scholars enrolled in the public schools during the last year was 160,657, as against less than 26,000 for the first year of American administration, an increase of more than sixfold.

During the 12 years beginning with 1901, \$11,691,349.98 have been wisely expended upon the educational system. In place of one school building in the island erected for that purpose, as was the case in 1899, there are to day 1,168 of all classes well distributed throughout the Territory. The educational system is being rapidly improved and adapted to local conditions in line with the best thought of the day upon the subject. Plans have been adopted for the development of vocational training, and it is the purpose of the department so to formulate the regular courses of study as to give to each term the highest practical value.

In legislation much constructive work has been done and three most important things accomplished, namely: An effective, non-partisan, sanitation service, with all the branches usually comprising such activities, has been established throughout the island, under the direct control of an independent health board, a director of service, and the executive department of the insular government; the election laws were so amended as to insure the secrecy of the ballot, to provide minority representation from each legislative district in the house of delegates, and to require a new registration of the voters of the island; and the establishment of a bureau of labor, the duties of which are to collect and collate information upon the subject of labor, its relations to the industries of the country, hours of labor, the earnings of laboring men and women, and the means of promoting their material, social, intellectual, and moral welfare; to investigate the causes of, and facts relating to, such controversies and disputes between employers and employees as may occur from time to time; and to exercise its good offices for the maintenance of satisfactory relations

between employers and employees; and, in general, to perform the duties devolving upon such bureaus.

In public works there has been much activity. Thirty-three important municipal improvement projects, including waterworks, electric-lighting plants, and public buildings, in as many different municipalities, were under construction or projected. Sixty-seven kilometers of macadamized roads were completed, making a total of 1,069 kilometers of territorial roads suitable for motor vehicles under maintenance at the close of the year. The irrigation work, under which 35,000 acres of rich land on the south side of the island will be developed to its full usefulness, has progressed rapidly since practical work began under capable management in 1910 to a point where its completion at the close of 1913 is confidently predicted.

In the administration of municipal affairs increased efficiency and less partisanship in the exercise of official authority is generally noticeable. The obligations of elective officials to the entire communities in which they are serving have been increasingly realized and observed, with the result that complaints of impositions upon members of minority parties, which have been numerous in the past, are rarely presented. Wise and economical use is generally being made of municipal and school revenues and it is a source of satisfaction to observe the great improvement in conditions and physical appearance of the towns throughout the island.

#### EXTERNAL COMMERCE.

The year's commerce between Porto Rican and other ports, aggregating \$92,631,886, was made up of \$49,705,413 in exports and \$42,926,473 in imports. Export, import, and total trade<sup>1</sup> values for the past 12 years, set forth comparatively in the following tables, show the annual increase that has been almost constant since the establishment of free trade with the United States in 1900:

##### *Merchandise shipped into Porto Rico from the United States and foreign countries.*

Years.	From the United States.	From foreign countries.	Total.
1901.....	\$6,965,408	\$1,952,728	\$8,918,136
1902.....	10,882,653	2,326,957	13,209,610
1903.....	12,245,845	2,203,441	14,449,286
1904.....	11,210,069	1,958,960	13,169,029
1905.....	13,974,070	2,562,189	16,536,259
1906.....	19,224,881	2,602,784	21,827,665
1907.....	25,686,285	3,580,887	29,267,172
1908.....	22,677,376	3,148,289	25,825,665
1909.....	23,618,545	2,925,781	26,544,326
1910.....	27,097,654	3,537,201	30,634,855
1911.....	34,671,958	4,115,039	38,786,997
1912.....	37,424,545	5,501,928	42,926,473

<sup>1</sup> Where the words "export" and "import" are used they refer to trade with both United States and foreign ports.

*Merchandise shipped from Porto Rico to the United States and foreign countries.*

Years.	To the United States.	To foreign countries.	Total.
1901.....	\$5,581,288	\$3,002,679	\$8,583,967
1902.....	8,378,766	4,055,190	12,433,956
1903.....	11,051,195	4,037,884	15,089,079
1904.....	11,722,826	4,543,077	16,265,903
1905.....	15,633,145	3,076,420	18,709,565
1906.....	19,142,461	4,115,069	23,257,530
1907.....	22,070,133	4,926,167	26,996,300
1908.....	25,891,281	4,753,209	30,644,490
1909.....	26,394,312	3,996,013	30,391,225
1910.....	32,095,645	5,864,574	37,960,219
1911.....	34,765,409	5,152,968	39,918,367
1912.....	42,873,401	6,832,012	49,705,413

*Merchandise shipped into and from Porto Rico in trade with United States.*

Years.	Imports.	Exports.	Total trade with United States.
1901.....	\$6,965,408	\$5,581,288	\$12,546,696
1902.....	10,882,653	8,378,766	19,261,419
1903.....	12,245,945	11,051,195	23,297,040
1904.....	11,210,069	11,722,826	22,932,895
1905.....	13,974,070	15,633,145	29,607,215
1906.....	19,224,881	19,142,461	38,367,342
1907.....	25,696,285	22,070,133	47,766,418
1908.....	22,677,376	25,891,281	48,568,657
1909.....	28,618,545	26,394,312	55,012,857
1910.....	27,097,654	32,095,645	59,193,299
1911.....	34,671,368	34,765,409	69,437,367
1912.....	37,424,546	42,873,401	80,297,946

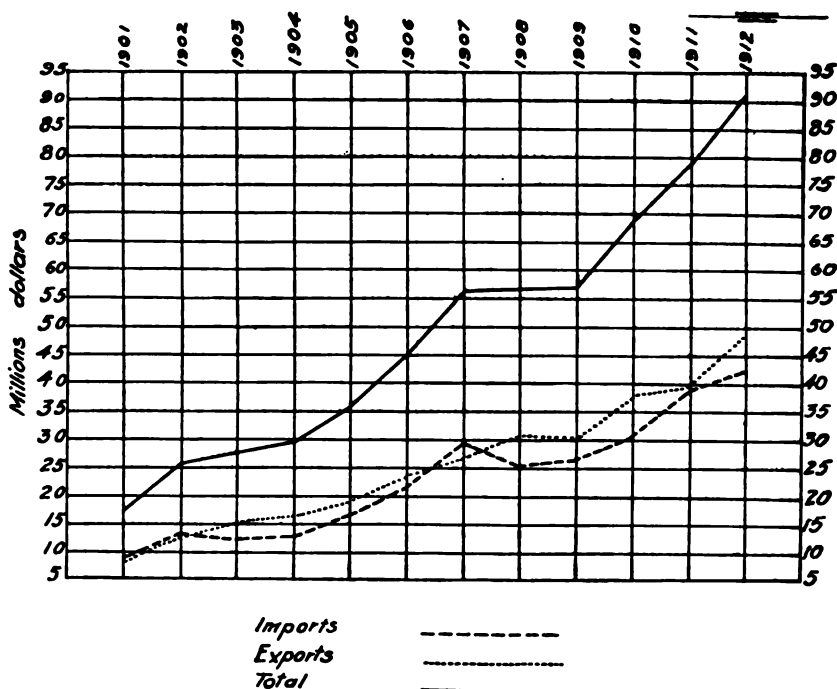
*Merchandise shipped into and from Porto Rico in trade with foreign countries.*

Years.	Imports.	Exports.	Total foreign trade.
1901.....	\$1,952,728	\$3,002,679	\$4,955,407
1902.....	2,326,367	4,055,190	6,382,557
1903.....	2,203,441	4,037,884	6,241,325
1904.....	1,858,960	4,543,077	6,502,037
1905.....	2,562,189	3,076,420	5,638,609
1906.....	2,602,784	4,115,069	6,717,853
1907.....	3,580,387	4,926,167	8,507,554
1908.....	3,148,289	4,753,209	7,901,498
1909.....	2,825,781	3,996,013	6,822,794
1910.....	3,537,201	5,864,574	9,401,775
1911.....	4,115,039	5,152,968	9,267,997
1912.....	5,501,928	6,832,012	12,333,940

*Statement showing annual trade balance resulting from the commerce between Porto Rican and other ports.*

Fiscal year.	Imports.	Exports.	Balance.	
			In favor of the island.	Against the island.
1901	\$8,918,136	\$8,583,967		\$334,169
1902	13,209,610	12,433,966		775,654
1903	14,449,286	15,089,079	\$639,793	
1904	13,169,029	16,265,903	3,096,874	
1905	10,536,359	18,709,666	2,173,306	
1906	21,827,065	23,257,680	1,429,615	
1907	29,267,172	26,996,300		2,270,872
1908	25,825,065	30,644,490	4,818,825	
1909	26,544,326	30,391,225	3,846,899	
1910	30,634,855	37,960,219	7,325,364	
1911	38,786,967	39,918,367	1,131,370	
1912	42,926,473	49,705,413	6,778,940	

Chart showing general increase in the value of imports and exports and total trade between Porto Rico and the mainland of the United States and other countries from 1901 to 1912.



*Merchandise brought into Porto Rico from the United States and foreign countries during the fiscal year ending June 30, 1912.*

Articles.	Domestic merchandise from United States.		Merchandise imported from foreign countries.	
	Quantity.	Value.	Quantity.	Value.
Agricultural implements.....		\$30,188		\$40,087
Animals.....		81,912		1,765
Breadstuffs:				
Bread and biscuits..... pounds..	3,539,975	380,329		25,095
Corn meal..... barrels..	42,228	151,194	6	43
Oats..... bushels..	370,455	221,254		
Wheat flour..... do..	332,659	1,757,278	1	6
Rice..... pounds..	134,648,403	4,894,747	76,734	2,968
All other.....		143,307		41,572
Candles..... pounds..	1,649,182	124,463	13,565	1,668
Cars, carriages, and parts of.....		1,587,344		5,865
Cement..... barrels..	290,761	384,283	906	1,546
Chemicals, drugs, dyes, and medicines.....		570,465		164,643
Coal and coke..... tons..	125,655	394,578		11,964
Cocoa and chocolate, prepared..... pounds..		34,464	362,145	79,325
Cotton, manufactures of:				
Cloths..... yards..	57,675,021	2,933,194	466,681	82,661
All other manufactures of.....		2,642,448		55,865
Earthen, stone, and china ware.....		129,435		20,885
Explosives.....		38,911		83
Fertilizer..... tons..	15,159	707,124	11,458	514,336
Fibers, vegetable, and textile grasses:				
Cordage..... pounds..	970,816	61,233	30,145	6,340
Jute bags.....		19,961		351,646
All other.....		83,792		34,657
Fish:				
Dried, smoked, or cured..... pounds..	6,642,826	368,436	10,948,837	717,107
All other.....		90,623		74,911
Fruits and nuts.....		173,343		47,152
Glass and glassware.....		175,621		33,709
India rubber, manufactures of.....		342,044		1,186
Instruments and apparatus, scientific.....		289,137		
Iron and steel, manufactures of.....		4,445,396		283,503
Leather, tanned skins, and manufactures of.....		1,599,047		54,770
Meat and dairy products:				
Meat products—				
Bacon..... pounds..	354,499	44,974		
Hams and shoulders, cured..... do..	4,062,284	540,124	16,231	4,284
Pork, pickled..... do..	14,254,649	1,346,333		
Lard..... do..	2,882,454	313,795	613	93
Lard compounds..... do..	7,038,680	562,394		
All other meat products.....		356,227		176,443
Dairy products—				
Butter..... pounds..	420,488	85,383		88,075
Cheese..... do..	896,585	159,281		216,331
Condensed milk..... do..	2,696,436	190,801		30,669
Musical instruments, and parts of.....		76,129		11,506
Oils:				
Animal..... gallons..	239	216	561	477
Mineral..... do..	3,765,730	477,160	4,270,512	93,602
Vegetable.....		103,669		166,636
Paints, pigments, and varnishes.....		202,519		45,290
Paper, manufactures of.....		638,948		106,160
Perfumeries, cosmetics, and toilet preparations.....		91,463		43,742
Seeds.....		4,444		3,983
Silk, manufactures of.....		345,491		10,746
Soap:				
Toilet or fancy.....		45,789		1,604
All other..... pounds..	12,547,646	555,192		1,395
Spirits, wines, and malt liquors:				
Malt liquors..... gallons..	577,495	286,067	42,761	31,229
Spirits, distilled..... proof gallons..	7,061	22,404	13,125	38,425
Wines..... gallons..	285,966	117,140	188,497	118,128
Champagne..... dozen quarts..			932	17,547
Sugar, refined..... pounds..	13,412,818	754,204		
Straw and palm leaf, manufactures of.....		80,263		352
Tobacco, and manufactures of:				
Unmanufactured..... pounds..	3,063,712	422,207	889	399
All other manufactures of.....		18,230		131
Toys.....		51,418		2,600
Vegetables:				
Beans and dried peas..... bushels..	179,131	543,577	7,315	21,020
Onions..... do..	16,446	25,624	42,574	33,224
Potatoes..... do..	141,797	164,410	51,960	46,082
All other, canned.....		43,063		12,571
All others (including pickles and sauces).....		15,427		82,703

*Merchandise brought into Porto Rico from the United States and foreign countries during the fiscal year ending June 30, 1912.*

Articles.	Domestic merchandise from United States.		Merchandise imported from foreign countries.	
	Quantity.	Value.	Quantity.	Value.
Wood, and manufactures of:				
Boards, deals, planks, and scantlings...M feet.....	58,084	\$1,168,417	4,001	\$82,311
Furniture.....		467,660		20,380
All other.....		575,583		34,817
Wool, manufactures of.....		208,628		8,582
All other articles.....		1,446,412		286,415
Total value.....		\$7,424,545		4,501,928
Foreign merchandise imported into Porto Rico through the United States (details not given)....				1,046,418
Grand total.....		\$7,424,545		5,548,346

*Domestic and foreign merchandise shipped from Porto Rico to the United States and foreign countries during the fiscal year ending June 30, 1912.*

Articles.	Domestic merchandise shipped to the United States.		Domestic merchandise exported to foreign countries.	
	Quantity.	Value.	Quantity.	Value.
Cocoa.....pounds.....	376	\$50	91,080	\$14,993
Coffee.....do.....	414,656	71,104	39,731,709	6,682,809
Cotton, sea island.....do.....	186,385	59,342	41,092	12,000
Fruits and nuts:				
Oranges.....boxes.....	277,399	584,368	23	46
Pineapples.....crates.....	818,717	683,801	379	973
Grapefruit.....boxes.....	108,919	524,976	18	72
All other (green, ripe, or dried).....		12,392		5
Prepared or preserved—				
Pineapples.....boxes.....	87,803	258,671		
All other.....do.....		3,549		26
Cocoanuts.....		301,970		6,913
Hides and skins, other than furs.....pounds.....	524,401	98,243	2,697	482
Honey.....		42,251		3,350
Leather, sole.....pounds.....	12,206	3,175	6,014	1,601
Seeds:				
Cotton.....do.....	4,070	60	684,414	11,273
Annatto.....do.....	214,517	9,631		
Spirits, distilled:				
Alcohol.....gallons.....	1,817	527	6,457	1,770
Rum.....do.....		93	21	84
Straw hats.....		138,463		9,703
Sugar.....tons.....	867,145	\$1,544,063		
Molasses.....gallons.....	10,936,670	700,981		
Tobacco and manufactures of:				
Unmanufactured—				
Leaf.....pounds.....	4,680,781	2,228,125		
Scrap.....do.....	775,970	92,006		
Manufactures of—				
Cigars.....M.....	169,484	5,077,976	288	8,735
Cigarettes.....M.....	11,298	32,089	26	82
Tallow.....pounds.....	35,567	1,941	278,914	15,884
All other domestic articles.....		408,555		69,361
Total exports of domestic merchandise.....		42,873,401		6,818,976
Total exports of foreign merchandise.....				13,036
Total exports of domestic and foreign merchandise.....		42,873,401		6,832,012

*Statement by countries of value of merchandise brought into Porto Rico from the United States and foreign countries for the past five years ending June 30, 1912.*

Countries.	Shipped into Porto Rico.				
	1908	1909	1910	1911	1912
United States.....	\$22,677,376	\$23,618,545	\$27,067,654	\$34,671,958	\$38,424,545
Austria-Hungary.....	9,573	8,826	7,030	15,000	11,329
Belgium.....	91,551	55,406	97,346	90,949	87,507
Denmark.....	58,948	48,388	67,137	108,737	97,593
France.....	351,719	336,855	345,469	435,024	409,278
Germany.....	310,229	260,981	463,856	586,875	601,723
Italy.....	79,028	72,106	76,611	80,847	105,446
Netherlands.....	130,250	122,842	164,314	252,596	218,486
Norway.....		2,097	414		271
Portugal.....	2,646	1,055	963	1,896	1,920
Spain.....	694,941	586,792	708,678	791,292	843,120
Sweden.....				2,127	2,236
Switzerland.....	2,668	3,725	373	1,012	1,036
United Kingdom.....	335,018	332,067	368,241	423,899	480,579
Canada.....	517,015	536,260	555,729	606,381	669,731
Newfoundland.....	41,099	170,107	77,074	80,025	88,322
Panama.....	265	803	85	553	670
Mexico.....	48,547	26,674	12,226	2,024	22,469
West Indies:					
British.....	307	8,343	1,954		15,548
Cuba.....	26,495	42,360	56,511	43,815	63,460
Danish.....	3,260	3,754	12,128	1,753	3,048
Dutch.....	6,553	8,673	28,504	12,523	8,343
Haiti.....	1,038				60
Santo Domingo.....	29,523	13,156	41,396	52,508	68,920
Argentina.....	54,729	19,283	43,066	129,155	80,579
Colombia.....	364	3,556	3,248	6,579	3,626
Ecuador.....					3,123
Uruguay.....	183,617	126,614	199,241	187,212	149,444
Venezuela.....	9,222	8,191	7,925	11,716	13,455
East Indies: British India.....	141,843	115,340	109,406	127,399	286,591
Canary Islands.....	17,841	21,018	43,066	28,707	64,158
Total.....	26,825,665	26,544,326	30,634,855	38,786,997	42,926,473

*Statement by countries of value of merchandise shipped from Porto Rico to the United States and foreign countries for the past five years ending June 30, 1912.*

Countries.	Shipped from Porto Rico.				
	1908	1909	1910	1911	1912
United States.....	\$25,891,281	\$26,394,312	\$32,095,645	\$34,765,409	\$42,873,401
Austria-Hungary.....	626,578	445,783	833,604	369,302	749,377
Belgium.....	18,499	10,934	12,662	1,380	6,711
France.....	677,414	547,337	584,193	365,929	422,549
Germany.....	553,328	105,775	259,506	66,851	90,244
Gibraltar.....	20,703	23,639	8,736	8,528	16,203
Italy.....	320,113	401,826	377,517	319,653	481,082
Netherlands.....	79,465	36,154	94,990	16,480	41,064
Russia.....			1,200		3,114
Roumania.....					9,390
Spain.....	843,380	780,871	1,058,197	887,037	1,218,178
Sweden.....	18,883	6,645	12,827	5,470	39,297
Switzerland.....					1,195
United Kingdom.....	17,619	41,485	13,195	14,214	16,169
Canada.....	1,420	19,191	5,437	40	333
Panama.....		249		1,225	410
West Indies:					
British.....	2,334	460	396	4,395	1,134
Cuba.....	1,484,304	1,432,909	2,470,078	2,989,704	3,637,752
Danish.....	8,591	20,504	19,984	15,875	11,945
Dutch.....	17,423	7,685	3,939	6,616	7,067
French.....	88	592	569	231	223
Haiti.....	583	342	288	717	875
Santo Domingo.....	48,049	96,900	88,347	60,254	61,081
Colombia.....	500	3,299	347	1,284	424
Uruguay.....	630		747		860
Philippine Islands.....					9,230
Canary Islands.....	4,141	1,987	1,811	100	2,925
French Africa.....	3,900	3,140	1,284	4,855	2,800
Spanish Africa.....				284	670
Total.....	30,644,490	30,391,225	37,960,219	39,918,367	46,706,413

	Imports.	Exports.	Total.
1901.....	\$8,918,136	\$8,583,967	\$17,502,103
1902.....	13,200,610	12,433,956	25,634,566
1903.....	14,449,286	15,089,079	29,538,365
1904.....	13,160,029	16,265,903	29,425,932
1905.....	16,536,269	18,709,565	35,245,834
1906.....	21,827,665	22,257,530	44,085,195
1907.....	29,267,172	26,996,300	56,263,472
1908.....	25,825,665	30,644,490	56,470,155
1909.....	26,544,326	30,391,225	56,935,551
1910.....	30,634,855	37,960,219	68,595,074
1911.....	38,786,997	39,918,367	78,705,364
1912.....	42,926,473	46,705,413	92,631,886

From the foregoing figures it will be seen that while the change in tariff conditions has had a marked effect on trade with the United States, it has not interfered with a steady increase of the trade with markets outside the tariff wall.

Among the principal classes of imports from the United States during the past year were breadstuffs invoiced at \$7,548,100, among which were rice shipments valued at \$4,894,747, and flour at \$1,757,278. The imports of cotton goods aggregated in value \$5,575,642; manufactures of iron and steel \$4,445,396; meats and meat products \$3,194,047; and leather goods \$1,599,047. Other imports, both from the United States and from foreign countries, consisted of merchandise of every description required for use and consumption in a prosperous and progressive country.

Sugar continues to be the principal article of export, the total shipments during the past year having aggregated 367,145 tons, valued at \$31,544,063.

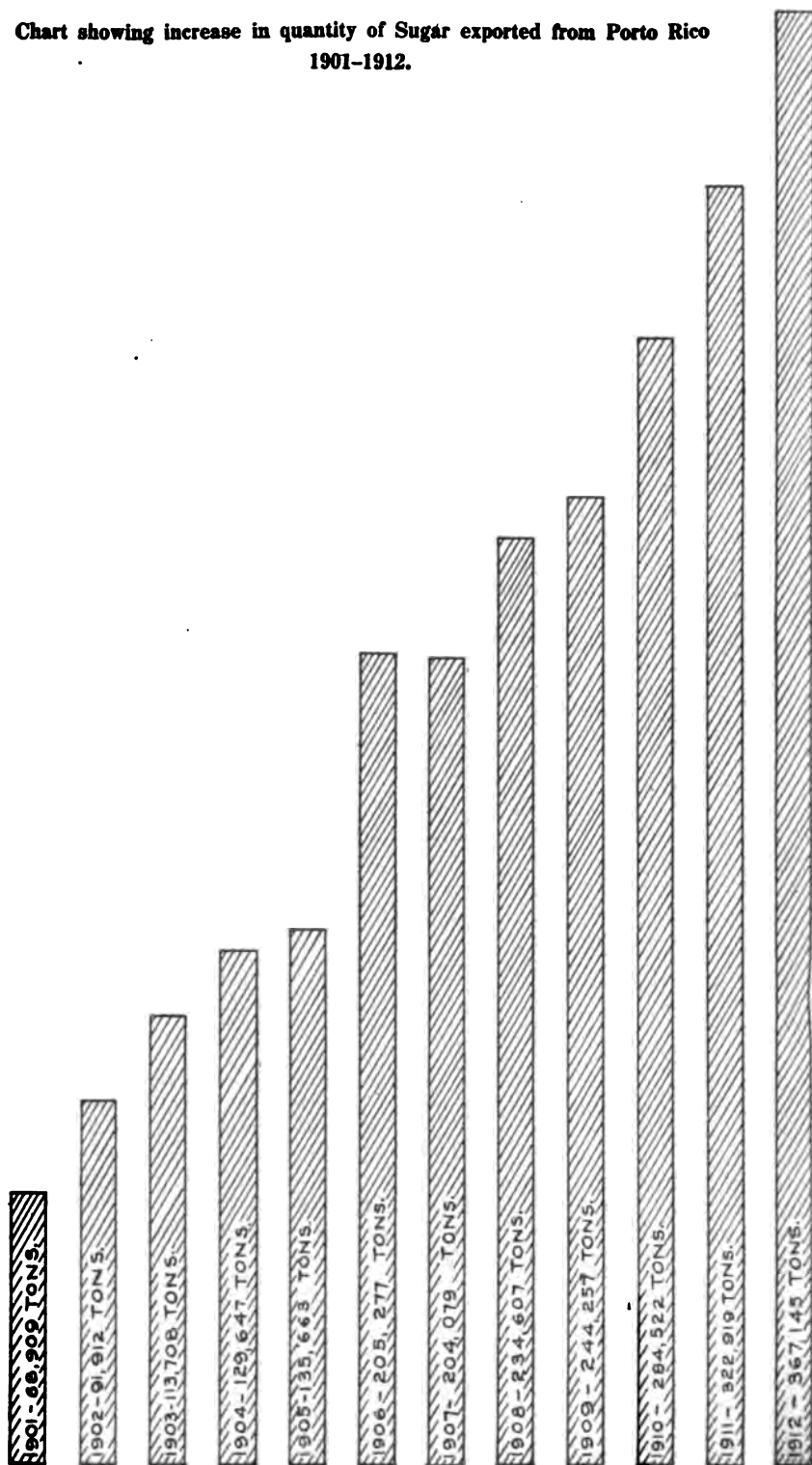
*Sugar Exports.*

Fiscal years.	Tons.	Value.	Average price per ton.
1901.....	68,909	\$4,715,611	\$68.43
1902.....	91,912	5,890,302	64.08
1903.....	113,108	7,470,122	66.04
1904.....	129,647	8,690,314	67.03
1905.....	135,663	11,925,904	87.90
1906.....	205,277	14,184,667	69.10
1907.....	204,079	14,770,682	72.37
1908.....	234,607	18,690,504	79.82
1909.....	244,257	18,432,446	75.46
1910.....	284,522	23,545,022	82.75
1911.....	322,919	24,479,346	75.81
1912.....	367,145	31,544,063	85.92

Nearly 5,500,000 pounds of tobacco leaf and scrap, invoiced at \$2,320,130, represents raw material shipped to tobacco manufacturers on the mainland. Cigars exported numbered 169,765,656, with a valuation of \$5,086,711, representing a decrease of nearly 5,000,000 cigars from the number exported during the previous year, the reason for this decrease being an increase of over 10,000,000 withdrawn for local consumption. There was a slight decrease in the cigarette exports for the same reason.



Chart showing increase in quantity of Sugar exported from Porto Rico  
1901-1912.



*Cigars.*

Fiscal years.	Withdrawn for consumption.	Withdrawn for export.	Total output.
1907.....	74,698,430	132,669,823	207,368,253
1908.....	76,953,530	103,781,719	180,735,249
1909.....	84,933,260	140,302,271	225,235,531
1910.....	92,700,160	151,724,438	244,424,598
1911.....	101,064,496	174,743,098	275,807,593
1912.....	111,682,616	169,766,666	281,448,271

*Cigarettes.*

Fiscal years.	Withdrawn for consumption.	Withdrawn for export	Total output.
1907.....	347,722,000	10,460,000	358,182,000
1908.....	354,407,900	11,232,424	365,640,324
1909.....	365,625,500	11,244,500	376,770,000
1910.....	393,844,300	13,142,000	406,986,300
1911.....	459,710,045	11,780,000	471,470,045
1912.....	532,431,000	<sup>1</sup> 11,293,350	<sup>1</sup> 543,724,350

<sup>1</sup> Treasury figures.*Tobacco leaf and scrap exported.*

Fiscal years.	Pounds.	Value.
1907.....	4,344,659	\$1,232,068
1908.....	8,402,286	1,996,065
1909.....	4,539,320	1,250,237
1910.....	4,176,172	1,268,317
1911.....	4,450,012	1,554,783
1912.....	5,456,751	2,320,130

The average price received for coffee was 16.8 cents per pound, or 2 cents higher than ever before. At the same time the quantity exported (40,146,365 pounds) was 6,000,000 pounds in excess of the total exports of the previous year, and the largest quantity ever shipped from the island in any one year except 1910.

*Coffee exports.*

Fiscal years.	Pounds.	Value.	Average price.
1901.....	12,157,240	\$1,678,765	\$0.137
1902.....	26,906,399	3,195,862	.118
1903.....	35,207,139	3,970,574	.112
1904.....	34,329,972	3,903,257	.113
1905.....	16,849,739	2,141,009	.127
1906.....	28,290,322	3,481,102	.123
1907.....	38,756,750	4,693,004	.121
1908.....	35,256,499	4,304,909	.122
1909.....	28,489,236	3,715,744	.130
1910.....	45,209,792	5,669,602	.125
1911.....	35,937,021	4,992,779	.147
1912.....	40,146,365	6,754,913	.168

Chart showing increase in number of Cigars  
exported from Porto Rico 1901-1912.

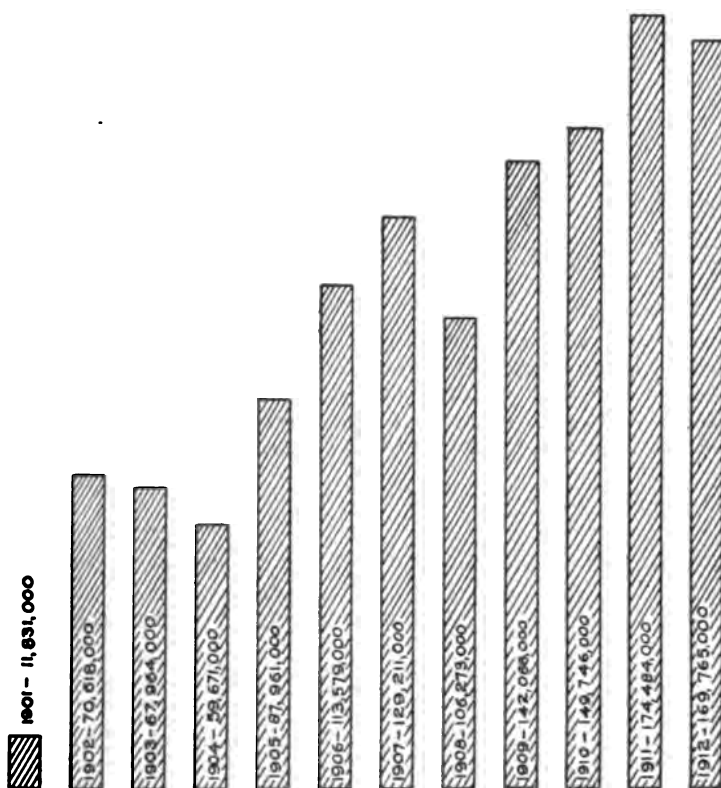


Chart showing the quantity of Coffee exported from Porto Rico during the years 1901-1912.

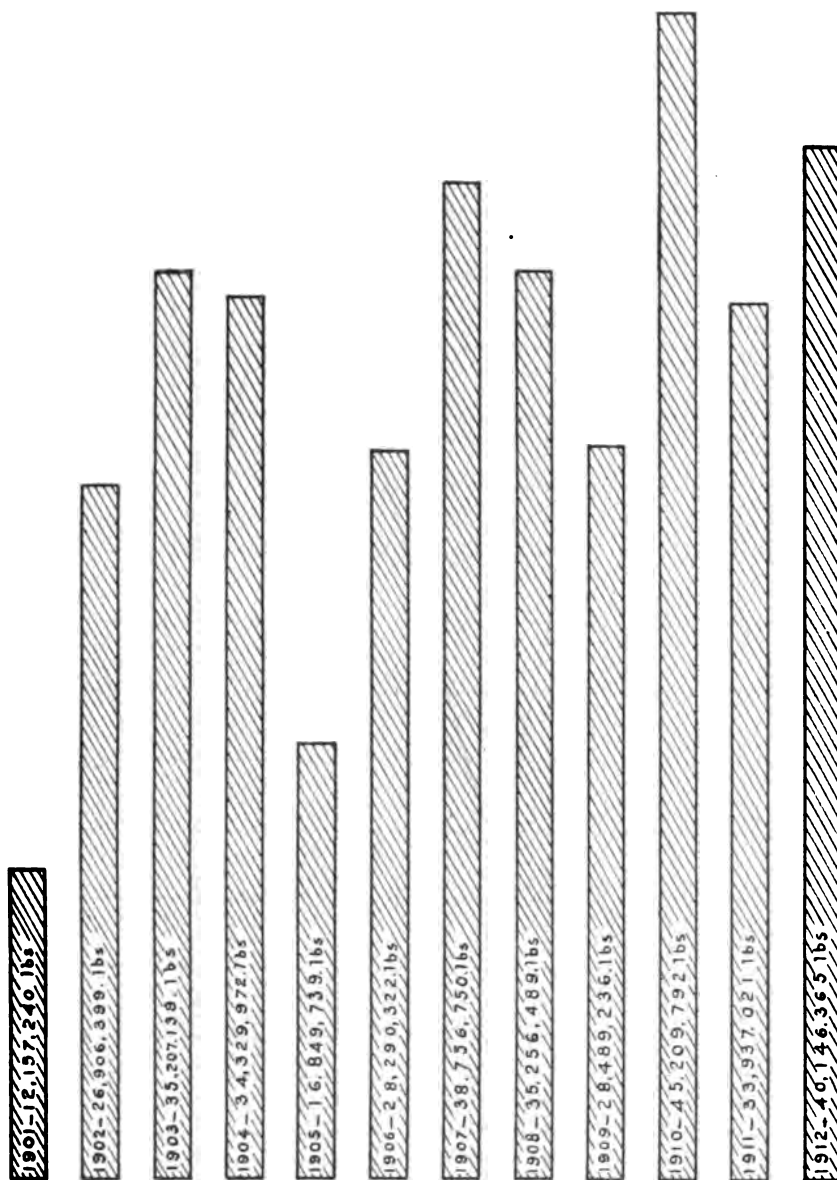


Chart showing increase in the value of Oranges, Pineapples, Coconuts, and Grape Fruit exported from Porto Rico 1901 to 1912.

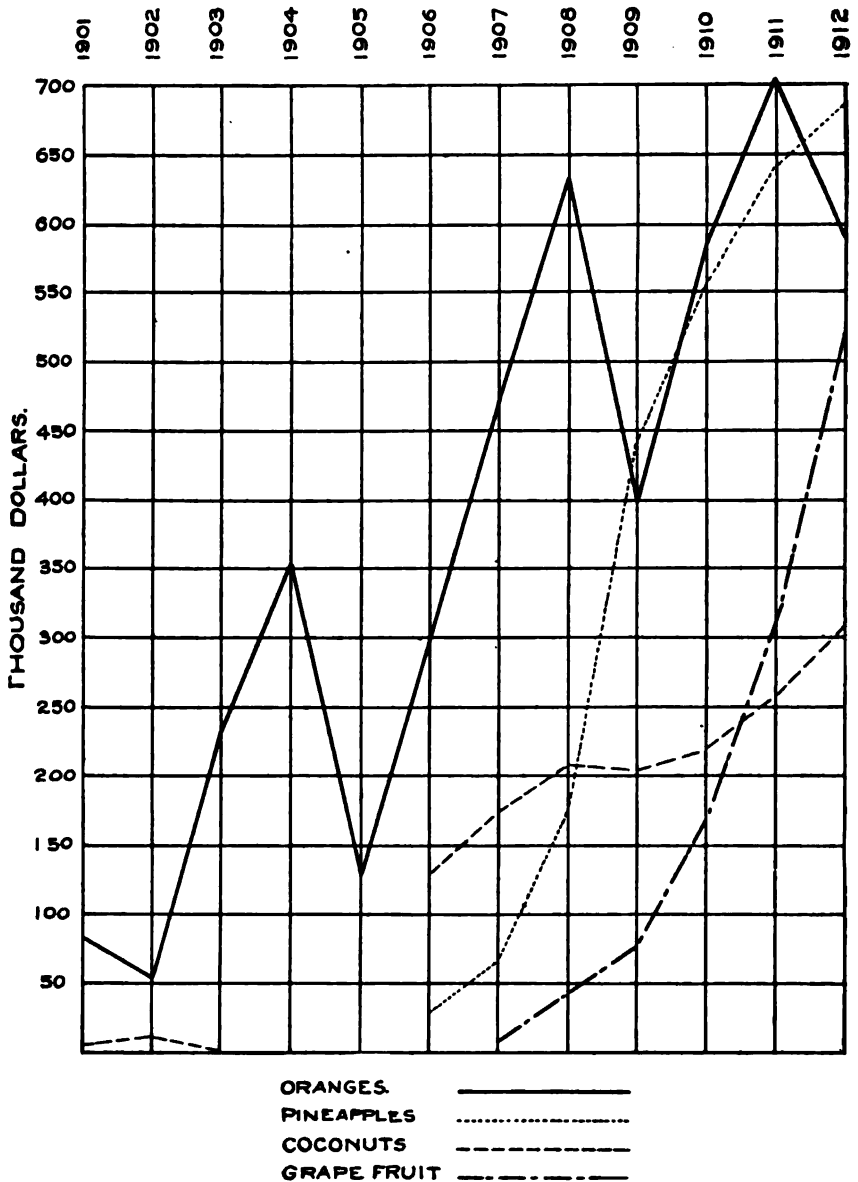
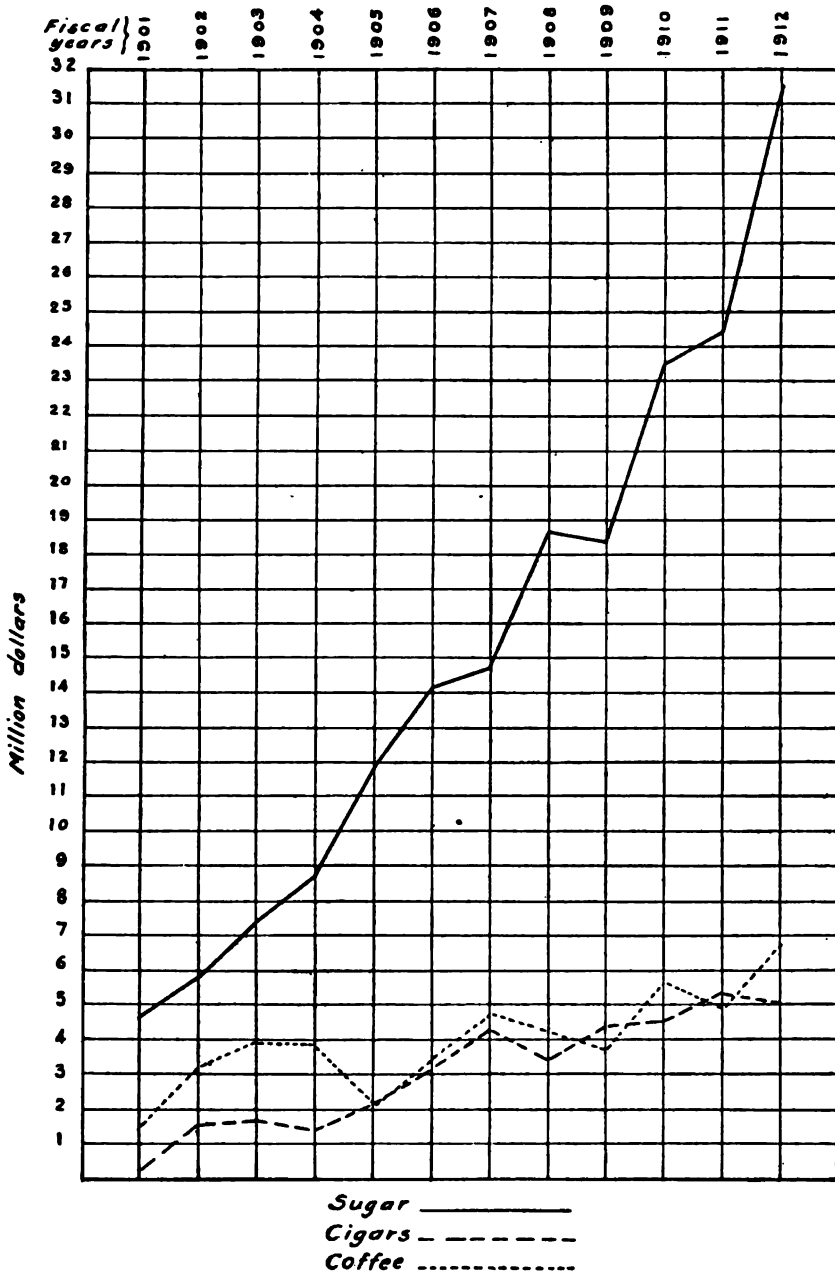


Chart showing increase in the value of the three principal products exported from Porto Rico, namely, Sugar, Cigars, and Coffee, from 1901 to 1912.



Fruit shipments show an increase from a valuation of \$2,073,993 in 1911 to \$2,377,762 in 1912. Especially is the increase apparent in the exportation of fresh and canned pineapples and in grapefruit, as shown by the accompanying statements and graphic charts.

*Value of fruit exports.*

Fiscal years.	Oranges.	Pine-apples.	Canned pine-apples.	Coconuts.	Grape-fruit.	Other fruits.	Total.
1901.....	\$84,475	(1)	(1)	\$8,334	(1)	\$16,992	\$109,801
1902.....	51,364	(1)	(1)	12,720	(1)	9,898	73,982
1903.....	230,821	(1)	(1)	326	(1)	61,956	293,103
1904.....	352,646	(1)	(1)	(1)	(1)	81,214	433,860
1905.....	125,422	(1)	(1)	(1)	(1)	120,478	255,900
1906.....	295,633	\$27,826	\$42,186	129,793	(1)	7,420	502,858
1907.....	409,312	64,831	63,519	174,957	\$7,586	3,737	783,942
1908.....	630,720	172,779	98,203	206,704	41,535	11,320	1,164,261
1909.....	401,912	442,780	117,830	204,498	76,310	18,164	1,261,484
1910.....	582,716	555,044	106,587	218,870	162,749	9,851	1,635,817
1911.....	703,969	641,291	149,744	258,168	309,698	11,123	2,073,993
1912.....	584,414	684,774	258,671	308,883	525,048	15,972	2,377,762

<sup>1</sup> Shipments included under "Other fruits."

Fiscal year.	Sugar.	Cigars.	Coffee.
1901.....	\$4,715,611	\$306,115	\$1,678,765
1902.....	5,890,302	1,549,235	3,195,662
1903.....	7,470,122	1,753,795	3,970,574
1904.....	8,690,814	1,460,496	3,903,267
1905.....	11,925,904	2,152,651	2,141,009
1906.....	14,184,667	3,074,226	3,481,102
1907.....	14,770,662	4,241,410	4,693,004
1908.....	18,690,504	3,414,140	4,304,009
1909.....	18,432,446	4,383,993	3,715,749
1910.....	23,545,022	4,480,030	5,669,602
1911.....	24,479,346	5,355,223	4,992,779
1912.....	31,544,063	5,086,711	6,754,913

LEGISLATION.

The Sixth Legislative Assembly of Porto Rico convened in second session January 8, 1912, and in accordance with law remained in session 60 days. Several matters of importance had not been disposed of on March 7 at the close of the regular session; therefore, a special session was immediately called and continued until the work of the legislature had been satisfactorily completed on March 14, 1912.

During this regular and special session 85 laws and 19 joint resolutions were enacted. Nearly all of them were beneficial additions to the statutes of Porto Rico, and of special importance are the sanitation law, the law providing for a bureau of labor, and the act providing for minority representation in the House of Delegates.

The sanitation law establishes an insular health board, and a general sanitary organization. It gives the sanitation service ample power and means effectively to attend to the sanitary needs of the island. It concentrates the control of the sanitation work in a director of sanitation. It empowers the board of health to adopt such regulations and rules as may be required and gives them, after approval by the Executive Council, the force and effect of law, and provides a simple means of settling all differences that may arise between those bodies. It is hardly possible that defects will not be

found in this law, but it is believed that in a general way it will meet the requirements of the situation, and place Porto Rico in a first-class sanitary condition, a result of the highest importance to the people of the United States as well as to the inhabitants of the island.

The law providing for a bureau of labor authorized the establishment of an organization for the purpose of collecting and making available information concerning labor conditions in the island, and for making a special study of relations existing between employers and employees.

The election law was so amended as to insure the secrecy of the ballot, provide for minority representation in the House of Delegates, and correct various minor deficiencies.

Among laws directly affecting municipal governments are one making permanent the plan for regulating the sale of fresh meats; an act prescribing certain conditions to govern the slaughter of cattle; an act authorizing municipalities to maintain bands or orchestras for public concerts; an act providing for the licensing of dogs and the control of other domestic animals; and an act to authorize municipalities to levy a special bond redemption tax in connection with loans for public improvements.

To the list of corporation laws there was added an act to authorize the organization of local banks and insurance companies; and an act compelling insurance companies to make appropriate deposits to guarantee the settlement of just claims.

Suitable provision was made for the publication by the supreme court of its decisions in volumes for permanent record and reference, and in loose sheets, as soon as rendered, so that they may be immediately available for the information of courts, lawyers, and others interested.

The legislature authorized the investment by the treasurer of \$200,000 in first-mortgage bonds of a corporation to be organized for the construction of a modern hotel in San Juan; it authorized a bond issue of \$500,000 for use in connection with port improvements at San Juan; it made provision for permanent exposition grounds at San Juan, and appropriated \$35,000 for their improvement; and a committee designated as the "Porto Rico Commerce Commission," consisting of the governor, the president of the executive council, and the speaker of the House of Delegates, to have supervision over commercial development and publicity work was created, and \$25,000 appropriated for its use.

The few acts that have been mentioned, together with many others of the same nature but of less importance, give to the work of the last Legislative Assembly of Porto Rico, as a whole, a decidedly progressive character.

A complete list of the acts and resolutions of the Legislative Assembly that have had the approval of the governor during the fiscal year will be found in Exhibit A, Appendix I, of this report.

The bill providing for citizenship for the people of Porto Rico, the bill to substitute the original organic act of Porto Rico, the bill providing for a substitute judge in the United States district court, and the bill to authorize the exchange of certain insular government property for portions of the Federal military reservation, all of which measures have for a long time been the subjects of more or less attention or discussion, are still awaiting final action in Congress.



All of this legislation now before Congress is of importance to the welfare of the island. Especially do the people of Porto Rico so consider the citizenship bill. They have waited for more than 10 years to be admitted to American citizenship, and it seemed to them during the last session of Congress that their hopes were about to be realized. It is a concession that, while entailing no new obligation or responsibility upon the people of the United States, would be of inestimable value to its recipients. It is therefore earnestly recommended that the enactment of the citizenship bill now pending in the Senate of the United States be urged at the next session of the present Congress.

### EXECUTIVE.

#### PROCLAMATIONS AND EXECUTIVE ORDERS.

Formal proclamations and executive orders were issued in the forms of administrative bulletins, as follows:

No. 33. July 1, 1911: Executive order publishing regulations concerning the payment of employees of the sanitation and health service.

No. 34. July 1, 1911: Executive order publishing rates for services rendered by Government automobiles.

No. 35. July 20, 1911: Circular letter addressed to all officers and employees of the insular government relative to transmission of official correspondence in accordance with the provisions of executive order of November 13, 1909.

No. 36. July 21, 1911: Executive order publishing circular letters issued by the treasurer of Porto Rico containing regulations governing the payment of wages, hire of carts, animals, etc., by the sanitation service.

No. 37. November 6, 1911: Executive order requiring officers and employees on leave in the United States to report to the secretary of Porto Rico and the Chief of the Bureau of Insular Affairs their addresses while absent from Porto Rico.

No. 38. November 7, 1911: Executive order promulgating rules for advances of funds to the special disbursing officer in the United States.

No. 39. November 14, 1911: Proclamation publishing the proclamation of the President of the United States designating Thursday, November 30, 1911, as a day of thanksgiving and recommending the observance thereof.

No. 40. March 8, 1912: Proclamation convening an extraordinary session of the Legislative Assembly on March 8, 1912.

No. 41. April 18, 1912: Executive order appointing commission to study and make regulations to govern the street traffic in San Juan.

No. 42. April 19, 1912: Proclamation recommending the observance of tuberculosis day, April 28, 1912.

No. 43. June 12, 1912: Proclamation promulgating sanitary rules and regulations governing the use of drinking vessels in public places.

#### ACTION UPON PETITIONS FOR PARDON AND PAROLE.

There were 353 petitions for executive clemency submitted to the governor during the year. In 37 cases pardons were granted. In 11 cases prisoners were allowed to go out on parole, or under conditions

similar to parole, to enable them to engage in some useful employment. Civil rights were restored in 3 cases, 3 petitions for the remission of court fines were favorably acted upon, and 2 sentences were commuted.

The following statement sets forth the number of petitions received and their treatment:

Applications for clemency.....	358
Granted:	
Full pardons.....	37
Fines remitted or reduced.....	4
Civil rights restored.....	3
Paroles and conditional pardons.....	11
Sentences commuted.....	2
	57
Denied after investigation and consideration.....	73
Filed without consideration on account of failure of petitioner to submit facts.....	187
	317
Pending.....	36

#### SANITATION SERVICE.

The sanitation law passed by the Legislature of Porto Rico in 1911 in practical application proved to be defective in many respects, especially in conferring the necessary authority on health officers, and in defining the administrative powers and functions of the executive head of the service, so that the comparatively few results accomplished under its provisions were attained in the face of great disadvantages. A general organization to take over the sanitation service in the various municipalities throughout the island was established and equipped with the necessary facilities for the purpose, and although some time was required to perfect the organization, and to familiarize the health officers with the provisions of the law and the proper manner of performing their duties, which were, of course, entirely new both to them and to the public with which they had to deal, a material improvement in sanitary conditions throughout the island in due time was noticeable.

By permission of the Secretary of War, Maj. Robert E. Noble of the United States Army, came to Porto Rico in August of 1911 from the Panama Canal Zone, where he had been engaged in the extermination of mosquitoes, to instruct the officials of the local sanitation service as to the methods employed in that work on the zone. As a result of the efforts of Maj. Noble and his associates during the six months that he was in the island, San Juan, formerly infested with mosquitoes, was made practically free from this pest, and their number was greatly diminished in Santurce and other suburbs of San Juan, where their complete eradication could not be accomplished on account of the absence of sewers, poor surface drainage, and adjacent swamp lands. The mosquito work has also been carried on in Ponce and other municipalities, where they have ceased to be as great a source of annoyance and danger as formerly, although progress toward their complete eradication will be more or less delayed by the limited amount of money available for use in that work.

There has been a material decrease in the number of cases of typhoid fever, due to the strict enforcement of rules with reference

to the condition of latrines and the disposal of excreta. In July, 1911, when the service was inaugurated, there were over 40 cases of typhoid fever in the city of San Juan, whereas since then there have not been over 10 cases at any one time in that city, with a population of nearly 50,000. Slight epidemics of typhoid fever occurred in Manati, Yauco, and Corozal, due to contamination of water supply or other similar causes, that were promptly eliminated when brought to the attention of the sanitary authorities, and in each case the epidemic was soon wiped out. Some 70 cases occurred in Penuelas, a town of 1,200 inhabitants, caused by contamination of the water supply, but prompt action on the part of the sanitary authorities soon put a stop to the epidemic. Danger from the source of infection was eliminated by providing water from an uncontaminated source, pending the completion of a new aqueduct now under construction.

The number of deaths from tuberculosis has drawn the attention of the health authorities to the urgent necessity of improving the faulty housing conditions in the various municipalities. In San Juan, especially, it was found that in many tenement houses there was less than 100 cubic feet of air space per occupant. They were damp, dirty, and not provided with sanitary fixtures. Efforts to correct these conditions were often persistently opposed by certain wealthy and influential property owners, and it was not until after the passage of the new sanitary law, which went into effect the 1st of April, 1912, that the necessary power was conferred on the health officers to enable them to secure compliance with these orders or conviction in cases of refusal.

The work of the anemia or hookworm service, formerly carried on by the bureau of tropical and transmissible diseases, and which became merged into the general sanitation service, is progressing throughout the island. Each health officer maintains a dispensary, where persons suffering from this disease are treated and their condition observed.

Much good work has been done under the United States pure food and drugs act, which is enforced in the island in connection with their other duties by the director of sanitation and the chief of the chemical laboratory, as representatives of the United States Department of Agriculture.

The act reorganizing the sanitation service, passed by the last Legislative Assembly, clearly set forth the powers and responsibility of the director of sanitation and other officials of that service and provided for a new board of health, defining its duties in such manner as to prevent any possibility of repetition of the misunderstanding as to functions that occurred under the provisions of the old law. The most satisfactory relations have existed between the new board of health and the executive branch of the sanitation service, and the attention that the individual members of the board have devoted to their duties has, even during the short time that the board has been in existence, resulted in the completion of a number of important sanitary ordinances, by the lack of which the service was previously so seriously hampered.

On the 14th of June, 1912, the sanitation authorities learned that an individual having symptoms of bubonic plague had just died in San Juan. An immediate investigation was made. The measures taken to determine the nature of the disease included the inoculation

of a guinea pig, that being the only recognized method of making a positive diagnosis of bubonic plague. Symptoms of the plague developed in the guinea pig on June 18, and the fact of the presence of bubonic plague in Porto Rico was immediately reported to the insular board of health, as required by law, and upon confirmation by that board, the fact was made known to the public by means of a proclamation issued by the acting governor under date of June 19. Undoubtedly the period that elapsed between the discovery of this first case of plague and its official recognition and the adoption of measures to prevent its spread is the shortest on record in any country. The health authorities of Porto Rico deserve great credit, not only for having so promptly discovered the infection, but for so fearlessly then and since informing the public fully as to facts. It at once inspired a confidence in the efficiency and integrity of the service that has since been of valuable assistance to it in the performance of its work. The prompt and effective measures that were immediately adopted apparently checked the infection and prevented a general epidemic throughout the island. There is every reason to believe, at the date of this report, that it will be confined to the city of San Juan and kept so well under control that there will be no more than an occasional case among human beings and that other parts of the island will remain free from infection. It is confidently anticipated that as soon as the rat extermination work and the rat proofing of buildings, now being energetically carried on in San Juan and other municipalities, is completed the island will not only become free from the infection but that there will be no further danger from this source in the future.

To the United States Public Health and Marine-Hospital Service the insular Government owes a debt of gratitude for the prompt response to its request for the services of officials who had had experiences in fighting bubonic plague in California and other places. By taking advantage of their experience and advice, the officials of the insular sanitation service have been able to make every effort an effective one instead of first having had to acquire a knowledge of the methods of conducting a plague campaign by means of costly experience and after hazardous delays.

The vital statistics for the past year, which are shown in detail in Exhibit F of Appendix I herewith, show a registration of births to the number of 39,874, an increase of 2,182 over the number recorded during the preceding year. Estimating the present population at 1,149,396, this number of births brings the birth rate up to 34.69 per 1,000. A total of 27,697 deaths were reported, resulting in a balance of 12,177 in favor of births. The mortality rate, upon the basis of the number of deaths stated, was 24.02 per 1,000.

The total expense of the sanitation service during the year, according to approved accounts in the hands of the director of sanitation at the close of business June 30, 1912, was \$639,029.84. Of this amount \$29,200.85 was expended in emergency measures for the suppression of localized outbreaks of typhoid fever and in inaugurating the bubonic plague campaign, and \$108,326.71 represents purchases of wagons, draft animals, furniture and fixtures, buildings and other permanent equipment, so that the disbursements to cover current expenditures amounted to but little over \$500,000.

The immediate results attained through the establishment of a centralized sanitation service in Porto Rico are apparent in improved sanitary conditions in the municipalities throughout the island, not only with reference to streets, but to hotels, restaurants, milk depots, meat markets, and bakeries, and the extensive installation in private houses of modern sanitary equipment. Results are apparent in the careful supervision over the condition of individuals and the prompt notation and treatment of contagious or communicable diseases, the strict enforcement of the pure-food laws, and many other services for the improvement of health conditions in the island. The efforts of sanitary officials in the various municipalities to bring the people to a realization of the intimate relation between cause and effect, the intimate relation between impure water supply, insanitary markets, and carelessness in the disposal of garbage and other filth, and the prevalence of typhoid fever and other diseases, has awakened the active interest of each and every inhabitant in the installation of aqueducts and sewer systems, sanitary markets, and other similar public works, and indirectly resulted in the necessary action on the part of the municipal administrations where these improvements were lacking to secure them.

The report of the director of sanitation, in which the various activities of that service and the work accomplished during the year is discussed at length, will be found in Exhibit F of Appendix I of this report.

#### INSULAR POLICE.

The appropriation made by the last Legislative Assembly for the police provided for an increase of 25 guardsmen, bringing the full number up to 625. At present the police organization consists of a police commission, composed of 3 members, appointed by the governor; 1 chief of police with general supervision and control over the work of the entire force; 1 adjutant, who acts as the executive officer; 1 police inspector at large; 1 chief of bureau of information in charge of secret-service work; 1 chief of detectives and 66 district chiefs, the latter being in direct charge of the guardsmen. The results obtained from an increase in the number of mounted men have been gratifying. The department had at the end of the year 144 horses. Bicycles have also proved to be valuable aids in police work in districts where roads will permit of their use.

The police during the year seized 3,173 deadly weapons, among which were 577 revolvers, 1,587 knives, and 605 razors. The seizure of so many concealed weapons does a great deal toward reducing the number of crimes of violence. Sixty-three murders were committed during the year, and in each case the criminal was captured: 53 of them were convicted and 10 acquitted. The total number of arrests for all causes was 52,967, in 86 per cent of which convictions resulted. The efficiency of the force, as will be seen from the foregoing, has been maintained at its usual high standard.

#### CIVIL SERVICE COMMISSION.

The civil service commission received 870 applications for examination during the year ending June 30, 1912, and 651 applicants presented themselves for examination. Of these 377, or 58 per cent,

passed. Among the more important examinations held were those for superintendent of public works, supervisor of prisons, and legal translator. The demand for men possessing special technical knowledge, particularly for the irrigation service, has made it necessary to bring a considerable number of employees of this character from the United States during the past year.

The Porto Rican Civil Service Commission has during the year, at the request of the United States Civil Service Commission, acted in behalf of that body and conducted examinations for Federal Government employees.

The local legislation under which the Porto Rican civil service is conducted, while susceptible of some improvement, has, nevertheless, enabled the commission during the past year to accomplish much in the direction of securing good and efficient public servants.

Detailed statistics concerning the work of the civil service commission will be found in Exhibit E of Appendix I, herewith.

#### BOARD OF MEDICAL EXAMINERS.

The board of medical examiners was created by an act of the legislature of 1903. Since its creation this board has very conscientiously and effectively guarded the practice of medicine and surgery in Porto Rico against the imposters and the incompetent that so often resort to that profession as a means of imposing upon the public. In 1911 the legislature, in amending the act of 1903, made a change in the law that in effect resulted in admitting to practice without further qualification any person who had been practicing in the island for a certain number of years. This change in the law has been the source of considerable embarrassment to the board, but it is hoped that as soon as the matter is brought to the attention of the legislature the defect will be remedied.

During the past year the board examined 22 candidates for licenses to practice medicine; for license as nurses, 22; for license as practican-tes (minor surgeons), 16; midwives, 7, and for license to practice optometry, 5.

As a result of these examinations licenses were issued to 13 physicians, 8 practican-tes (minor surgeons), 1 midwife, 2 optometrists, and 17 nurses.

In but two cases did the board exercise its authority to confer licenses to practice medicine without examination. One case was that of a medical officer of the United States Public Health and Marine-Hospital Service assigned to duty in the island, and the other of a physician who prior to the creation of the board had practiced his profession in the island for a number of years.

#### BOARD OF DENTAL EXAMINERS.

The board of dental examiners created by the act of March 9, 1905, has during the year, after proper examination, issued a number of licenses to dental surgeons. There are at the present time 53 dentists duly authorized to practice their profession in Porto Rico. As the law, however, does not give the board the power that it should have to prosecute offenders, there are a number of persons practicing

without authority, and they will probably continue to do so until a suitable amendment to the law has been made.

#### BOARD OF PHARMACY.

The board of pharmacy has met at frequent intervals during the year and has disposed of many matters submitted for its consideration, in accordance with the law of 1906. A number of applicants were examined, and 8 of them qualified for licenses to practice pharmacy.

Much credit is due the members of this board for the persistent and conscientious manner in which they have discharged their duty to the public, despite the disadvantages of having had to work under an unsatisfactory pharmacy law. A careful study of the law is now being made by the board, and its members hope to be able to secure some beneficial amendments in the next legislature.

#### BOARD OF TRUSTEES, UNIVERSITY OF PORTO RICO.

The governing body of the University of Porto Rico is the board of trustees. It is composed of seven members, the commissioner of education as president, and the speaker of the House of Delegates and the treasurer of Porto Rico as members *ex officio*, and four members appointed by the governor. The university has been in existence nine years. The funds available for the extension of its work have been limited, and its development has therefore been gradual and well planned. Additional buildings are being added from time to time. A faculty for the agricultural department was secured during the past year, and an agricultural course at Mayaguez, in connection with the United States Government agricultural station, established. The work of the normal department and of the college of liberal arts has also been extended. The university library, which is growing steadily, now contains some 7,000 volumes. The total enrollment of students during the year was 1,183.

#### BOARD OF TRUSTEES, INSULAR LIBRARY.

The insular library, located in San Juan, is, in proportion to its size and cost of maintenance, probably one of the most appreciated public institutions. It has issued cards during the year to 3,000 regular readers and has a daily circulation of books and periodicals of 400. The library now contains nearly 20,000 volumes, systematically classified and indexed. Over 2,000 volumes in Spanish, English, French, and German were secured during the past year. The total expense for the library during the year was \$4,947, of which \$2,000 was spent for books.

#### BOARD OF TRUSTEES, TEACHERS' PENSION FUND.

The present function of this board is to close up the accounts pertaining to the teachers' pension fund originated by royal decree of February 1, 1894. At the time of change of sovereignty various amounts were owing to the fund by municipalities, and there were a number of pension claims to be settled. Complete settlement of the accounts has been prevented by the fact that some \$27,000 had been

sent to Spain and has not been returned. With this exception, however, the work of the board is practically completed, unless by means of efforts now being made through diplomatic channels the funds referred to are returned to Porto Rico. In that event claims of a number of pensioners and their heirs will demand attention.

#### BOARD OF COMMISSIONERS ON UNIFORM STATE LEGISLATION.

Upon the invitation of the conference of commissioners on uniform State legislation, Porto Rico has sent two commissioners to two different conferences, the last attended being the one held at Chattanooga in August, 1911.

The commissioners have twice submitted reports to the local legislature recommending, in accordance with the understanding reached at the national conferences, the enactment of a law regarding the sale and transfer of personal property; a law regarding uniform bills of lading; a law with respect to family desertion and nonsupport; and a bill to provide for a uniform child-labor law. All of these are bills that warrant and it is believed will receive the favorable consideration of the local legislature in due time, and especially the law regarding child labor, which will be of great importance to the growing generation of the country.

#### BOARD OF COMMISSIONERS OF AGRICULTURE.

The Legislative Assembly of Porto Rico in 1911 passed an act creating a board of commissioners of agriculture composed of one representative each of the Government, the legislature, and the four principal agricultural and business organizations in the island. The purpose of the board is to make a careful study of the various problems with which coffee, sugar, tobacco, and fruit growers are confronted, especially with reference to insect pest and plant diseases, to discover the means and take such action as may be necessary to prevent them. Independent investigations have been carried on by the station of the United States Department of Agriculture at Mayaguez, and by the sugar planters' station at Rio Piedras. By correlating the work of these two stations and the activities of the board it was thought that quicker and more far-reaching results could be obtained. The field of work now being covered is as follows:

Federal station at Mayaguez; investigation and experiments relating to miscellaneous agricultural problems, except those of sugar-cane growing.

Sugar planters' station at Rio Piedras; investigation and experiments relating to problems encountered in the sugar industry.

Insular board of agriculture: (1) inspection and quarantine work for the purpose of discovering, identifying, and excluding plant diseases and harmful insects; (2) introduction of birds and parasites to destroy harmful insects and plant diseases; (3) promulgation and enforcement of regulations to protect beneficial birds and prevent the spread of plant diseases; (4) experimental laboratory and field work in connection with the above-mentioned activities; (5) educational work, i. e., compilation of information and data for use in schools and elsewhere.



For inspection and quarantine work the board employs inspectors and maintains a fumigation plant at each of the principal seaports. During the fiscal year 1,268 different consignments of seeds, fruits, plants, etc., from other countries, suspected of carrying harmful insects or plant diseases, were intercepted and inspected. Among these importations 1,761 articles were subjected to fumigation, and 1,100 articles destroyed. The board, through the cooperation and assistance of the customs service, is able to exercise supervision over all importations that might be carriers of dangerous insects or plant diseases.

In the introduction of beneficial birds and parasites work has thus far been confined to investigation and search for birds and parasites that can be introduced as destructive enemies of the local pests. This involves thorough study of requirements and then extensive search in other countries for the birds and parasites to meet these requirements. Investigations by the board already have been carried on extensively in Porto Rico and elsewhere.

Suitable rules for the protection of birds have been promulgated and are strictly enforced. Over 100 species of bird life have been discovered in the island and listed. In the past comparatively few birds were to be seen in Porto Rico. They were the prey of the mongoose, and the birds and their eggs were greatly sought after by the people for food and so-called "sport." The strict prohibition of bird hunting has already resulted in a notable increase in the number of birds of all kinds seen throughout the island.

The entomologists employed by the board have been engaged in experimental and research work along various lines in the classification of the several local plant parasites and diseases, and the search for their enemies with which to eliminate them. In this they have taken full advantage of the knowledge acquired in similar work carried on in the past by the entomologists of the United States Department of Agriculture and other scientists in the United States and elsewhere.

Along educational lines work is directed toward informing the public, through the public schools and otherwise, of the value of bird life to agriculture, of the nature of injurious insects and plant diseases, and the practical methods of checking and preventing their spread.

#### INSULAR FAIR BOARD.

The insular fair board created by an act of the Legislative Assembly approved March 10, 1910, has devoted much time and thought to the successful inauguration and conduct of an annual insular fair and has succeeded beyond all expectations. The first fair was held at San Juan in February, 1911, when its principal features were the general exhibits provided by various governmental departments and business firms, and amusements brought from the United States. The exhibits of general farming, to promote and improve the methods of which is the main object of the fair, were not as plentiful or diversified as the management desired. The people generally had not had time to learn the advantages of the undertaking or how to prepare their products for exhibition. The attendance, however, was large, and people of all classes from every part of the island attended and were generally pleased with the entertainments and interested in the

purposes for which the fair was established, with the result that the second fair was much more successful in point of general exhibits. Several municipalities erected buildings of their own, the number of individual exhibits was largely increased, and the fair spirit of rivalry, so important to the progress of a community, and especially one in which agriculture is the principal vocation, was raised and will be increased to the advantage of the fair as an exposition and the people as an industrial community. The insular fair is one of several movements inaugurated since 1909 with the object of increasing the efficiency and thereby the prosperity of the people of the island. It especially appeals to them and, properly conducted, will prove a potent factor in their progress. Permanent and desirable grounds have now been secured through the transfer to The People of Porto Rico of certain naval lands and the cooperation of the military and treasury authorities of the Federal Government, which will enable the fair board to carry out its purpose to maintain in connection with the undertaking, as a nucleus for annual fairs, a permanent recreation park and exhibit.

The members of the fair board, who are appointed by the governor and serve without compensation, are deserving of great credit and the thanks of the public for the enthusiastic and painstaking manner with which they have performed their duties, to which the success and development of the fair is due.

#### PORTO RICO COMMERCE COMMISSION.

The Porto Rico Commerce Commission, which is an honorary body serving without compensation and composed of the governor, president of the Executive Council, and speaker of the House of Delegates, was created by a joint resolution of the Legislative Assembly approved March 14, 1912—

to promote by every means available and in such manner as the commission may deem proper, the commerce, industries, and agriculture of Porto Rico, and to aid in establishing and maintaining permanent and profitable markets for the products of the island, and especially coffee.

The resolution also appropriated \$25,000 to aid the commission in the performance of the duties assigned to it. It was the intention of this legislation to continue and extend, through the agency thus established, the work begun by the governor under a joint resolution of similar purpose adopted at the regular session of 1910, which had been conducted through two subagencies—a bureau of information at San Juan and a bureau of information and commercial agency in New York. These bureaus worked together in cooperation with the Porto Rico association and other business organizations in securing the introduction into American markets of the standard products of Porto Rico in such form as to enable their identification as such and in gathering and distributing reliable information concerning the island, its resources, opportunities, accessibility, and attractions. During the first two years the excellent qualities of Porto Rican coffee and fruit were advertised and demonstrated, and those products with others distributed either gratis by the bureau or at retail by the Porto Rico association to the best trade in New York, with the result that a regular demand has been created for them at the highest prices the market affords, and they are now to be found for sale with the

most reliable dealers in New York City. Porto Rican lace and other minor products have also through this means become better known and appreciated. The commerce commission has recently fitted up a new and commodious office at 569 Fifth Avenue, New York City, as a headquarters of the commercial agency in the United States, from which the distribution of descriptive literature and products of the island is actively conducted. This office, in which both Spanish and English speaking employees are always ready to render any service required, also provides a centrally located, comfortable, and useful meeting place for the people of the island when visiting New York. Several meetings of the commerce commission have been held since its creation, both in the United States and the island, for the purpose of inspecting and perfecting the organization through which it performs its functions, and intends to keep in constant touch with the business community of the island as well as the markets of the United States.

#### PERSONNEL.

The following changes in presidential appointees, under the act of Congress of April 12, 1900, took place during the fiscal year:

*Appointments.*—Wolcott H. Pitkin, jr., attorney general, April 21, 1912; Allan H. Richardson, treasurer, January 25, 1912; Manuel Camuñas, member of Executive Council, July 14, 1911.

*Resignations.*—Foster V. Brown, attorney general, April 20, 1912; Edwin Grant Dexter, commissioner of education, June 30, 1912; Samuel D. Gromer, treasurer, January 24, 1912.

The following executive appointments were made by the governor during the year in pursuance of existing local law:

Fiscal of the supreme court, 1; secretary of the supreme court, 1; district chiefs of police, 13; justices of the peace, 13; registrar of property, 1; assistant secretary of municipal court, 1; director of labor, charities, and correction, 1; commissioners for Porto Rico in the United States, 5; director of sanitation, 1; member of Porto Rican civil service commission, 1.

The governor also made the following appointments to fill vacancies occurring in elective offices until the date of the next election as provided by law: Marshals of district courts, 2; judges of municipal courts, 25; secretaries of municipal courts, 6; marshals of municipal courts, 8; municipal mayors, 12; municipal councilmen, 87.

The following appointments upon honorary boards and commissions were made as provided by law:

To the insular fair board: F. Manuel Toro, July 5, 1911; John A. Wilson, March 26, 1912; Antonio R. Barcelo, May 1, 1912.

Board of trustees, insular library: T. E. Edwards, July 7, 1911.

Board of review and equalization: Rafael Castro Gonzalez, July 7, 1911; William Reifkohl, July 7, 1911.

Insular police commission: Juan R. Baiz, March 7, 1912; Lee Nixon (acting), September 8, 1911.

Board of medical examiners: Antonio Molina de St. Remey, August 4, 1911; Pedro Gutierrez Igaravidez, February 10, 1912; Geronimo Carreras, June 7, 1912.

Board of commissioners of agriculture: Manuel Rodriguez Cabrera, September 1, 1911.

Board of trustees, University of Porto Rico: J. T. Crawley, November 28, 1911.

Insular board of health: Dr. Francisco del Valle Atilas, April 1, 1912; Dr. Tomás Vazquez, April 1, 1912; Dr. Gustavo Muñoz Diaz, April 1, 1912; Dr. José N. Carbonell, April 1, 1912; Jorge Dominguez, April 1, 1912; Manuel Travieso, April 1, 1912; F. W. Dalrymple, April 20, 1912.

Bank law commission: Frank M. Welty, April 27, 1912.

Board of dental examiners: Lorenzo R. Noa, May 4, 1912.

San Juan Harbor board: Waldemar Lee, May 4, 1912; M. R. Calderon, May 4, 1912; Sosthenes Behn, May 4, 1912.

Governor's staff: John W. Zimmerman, colonel, February 2, 1912; Eduardo Negron, lieutenant colonel, June 18, 1912.

The public is indebted to the gentlemen who have served in these offices for the conscientious and valuable attention they have thus gratuitously devoted to the welfare of the country, and especially has the assistance and cooperation they have rendered the governor at all times been appreciated by him.

A complete list of appointments made by the governor during the past year will be found in Exhibit B to Appendix I.

#### MUNICIPALITIES.

The creation by the last Legislative Assembly of the municipalities of Hormigueros and Guaynabo increased the number of separate municipal governments to 71. Many municipalities throughout the island have taken advantage of the recent laws authorizing bond issues for public improvements, and 33 distinct plans for waterworks, sewer systems, and other much needed improvements are now in hand. The most important among these are the waterworks and sewer systems proposed for Ponce, Yauco, Cayey, Caguas, Humacao, and Bayamon. Plans for these projects already completed cover work estimated at nearly half a million dollars. More municipal improvements have been projected or undertaken during the past year than ever before in the history of local municipal administrations. One of the most important is the pier now well under construction at Ponce which will cost approximately \$300,000. The city of San Juan is engaged in extensive street improvements and in the construction of a new public market. It is considering a new sewer and water system and is at work upon plans for the reconstruction of some of its poorer wards for providing therein modern tenement houses and dwellings for the laboring classes.

These improvements and others contemplated will contribute much toward better health conditions throughout the island, and with the activity of the central sanitation service satisfactory sanitary conditions should be attained.

The municipal governments are in good financial condition. Their gross income for the fiscal year 1911-12 amounted to \$1,946,605.81, or \$248,978.52 more than that of the previous year. The only municipal bonds outstanding are those of San Juan, Ponce, Mayaguez, and Arecibo. The original issues amounted to \$1,100,000, of which \$772,000 was redeemed January 1, 1912, reducing the obligation to \$328,000. The financial condition of nearly all of the municipalities is such as to permit other bond issues to cover immediate cost of all necessary public improvements.

The total indebtedness of municipalities on June 30, 1912, was \$562,982.88, a decrease of a little more than \$160,000 from the municipal debt at the end of the previous fiscal year. This amount includes the bonded debt of \$328,000. The cash on hand in bond redemption funds amounted to \$84,615.54, and available for expenditure by municipal treasuries \$429,071.06, or a total of \$513,686.60, showing that the available cash resources of the municipalities were almost sufficient to liquidate their entire indebtedness at the end of the fiscal year, the balance against them being but \$49,296.28.

Several laws of direct benefit to the municipal governments were passed by the last Legislative Assembly. The law with reference to the disposition of municipal lands was enacted to authorize municipalities to dispose of such lands as are not required for public purposes to individuals under proper conditions for use as building sites. The sale or lease of these lands, their improvement, and the revenue that will accrue from them will result in much benefit to the communities in which they are located, whereas theretofore there was no legal method of employing them to advantage, and the result was that they were either unimproved and idle, or were used by unlawful occupants.

Another law passed by the legislature authorizes municipal councils to pass ordinances imposing special taxes in connection with bond issues for public improvements. They were authorized by another act to appropriate funds with which to equip and maintain municipal bands or orchestras; and to pass ordinances providing for the licensing of dogs, the control of domestic animals, and the maintenance of public pounds.

The new municipality of Guaynabo, consisting of four wards from the municipality of Rio Piedras and six wards from the municipality of Bayamon, was created, and the village of Hormigueros, formerly a part of the municipality of Mayaguez, was made a separate municipality. In both instances the districts segregated from the old municipalities were so far removed from the original seats of government that they were deprived of many of the advantages that they may now enjoy as independent corporations.

#### FRANCHISES.

The legislature appropriated \$5,000 for use in studying the character of services rendered by public-service corporations under their franchises. Among other common carriers, careful attention was devoted to the ferry and railway system operated between San Juan and Bayamon, concerning which there had for a long time been much complaint. Investigation resulted in the formulation of 19 specific charges of failure to comply in as many respects with the obligations imposed upon the owner by the terms of his concession. The Executive Council, acting upon these charges, served formal notice upon the owner in which the deficiencies were specifically set forth. He was at the same time ordered to correct the respective defects within fixed periods of time and advised that in event of failure to do so judicial action with a view to cancellation of his franchise would be commenced. The result of this action will be to compel the present concessionaire to render proper service or to allow some one else to undertake the furnishing of transportation of freight and passengers between San Juan and the Bayamon district.

Franchises to the number of 44 were granted by the Executive Council and approved by the governor during the year. They represent new undertakings and extensions of industrial activities of many kinds, including water power development, bridge and pier construction, and new telephone and electric light and power lines. One of the most important franchises approved authorizes the Porto Rico General Telephone Co. to establish communication between various towns of the island. The franchise replaces an old telephone concession formerly held by this company and enables it to install a local and long-distance system in San Juan and other municipalities. Another franchise worthy of special mention authorizes the municipality of Ponce to construct a pier at that port. At present there are in that harbor no proper facilities for handling cargo. The new pier, now under construction, will represent an investment of \$300,000. The immediate cost will be met by an issue of municipal bonds. The pier will be owned by the municipality. Its direct control and operation will be in charge of a board of management. Receipts from operation will be used to pay the interest on the bonds and establish a sinking fund until the issue is redeemed, after which they will be used by the municipality for other public improvements.

In view of the careful investigation and consideration to which each application for a franchise or concession is subjected and the fact that each grantee is required to furnish substantial security to guarantee good faith, these franchises that have been finally approved by the governor are gratifying evidences that the conditions in Porto Rico are sufficiently sound and safe to attract the investment of capital upon an equitable basis for the extension and improvement of old and the inauguration of new enterprises, both public and private.

A list of franchises granted during the year will be found in Exhibit D of Appendix I herewith.

#### INSULAR GOVERNMENT FINANCE.

As stated in the introduction, the revenue receipts of the island from all sources and for all purposes were the largest in its history, aggregating \$6,665,348.55. Of this sum \$1,772,119.46 were collected on account of municipalities, \$524,065.14 for the use of school boards, and \$4,369,163.95 for the maintenance of the insular government.

The increase in insular government revenues over the preceding year was \$382,418.11, or approximately 10 per cent, and resulted from larger actual collections from all sources of income, which were stimulated and expanded by the greater industrial activity and prosperity and the consequent advance in property values, for which the period is conspicuous. The only material change in rates of taxation which took place during the year was an advance of \$0.02—from \$0.26 to \$0.28—per liter upon alcohol, which became effective July 1, 1911. The anticipation of this increase, however, resulted in heavy withdrawals of the commodity for consumption during the last quarter of 1910-11, and a corresponding decrease in the quantity withdrawn during 1911-12, so that the increase in internal revenue receipts is in no particular due to this or any other modification of the law. The larger internal-revenue collections resulted principally from an increased home consumption of manufactured tobacco and

revenue-yielding beverages. The total internal-revenue receipts of the year, collected at the moderate cost of \$0.029 per dollar, were \$2,778,231.32, an increase of \$206,781.30 over the preceding year.

The reassessment of the property of the island for purposes of taxation, which began July 1, 1910, was substantially completed during the fiscal year and the increased values established thereby formed the basis for a considerable increase in receipts from that source. The total assessed value of all real and personal property, which in 1905 was less than \$90,000,000, has since increased nearly 100 per cent and stands to-day at \$178,275,130. The difficulties encountered in revising the real property values on account of vague and faulty descriptions have emphasized the great need of a cadastral survey of the island, which should be accompanied by a gathering of full data concerning its topographical and soil conditions. It is an undertaking, the thorough accomplishment of which will require a series of years and should be prosecuted as rapidly as the state of the public finance will permit. The total cost will not exceed \$600,000. The total receipts from property taxes, based on revised values, were \$1,628,767.10, an increase of \$264,686.20 over those of the preceding year. Of the total collections from that source, however, but 10 per cent, or \$162,876.71, accrued to the insular treasury, the remainder going to the support of municipal governments and school boards.

The total customs receipts, representing almost exclusively duties on imports, showed an increase of \$114,593.95, and aggregated \$1,180,592.90, the largest collections of record, again refuting the theory that the increasing trade with the United States would wipe out this source of revenue. As a matter of fact, the foreign trade, although relatively small, has gradually increased as the industries of the island have developed and will no doubt continue to be increased or diminished in accordance with the upward or downward trend of other commercial activities.

The amount of taxes remaining unpaid at the close of this fiscal year was even less than the small percentage unpaid June 30, 1911, and again reflects the prosperous condition of property owners in general and the efficiency of the revenue collecting organization under the Treasury Department. At the end of last year thirteen one-hundredths of 1 per cent of the taxes were delinquent, while at the close of this but six one-hundredths of 1 per cent of the taxes due remained unpaid.

With the increased industrial activities of the Territory added responsibilities have fallen upon the Government, to meet which greater expenditures have been required, but these have been held at the lowest point consistent with a proper regard for the efficiency of the public service and the industrial development of the island, which in turn brings greater revenue. So while the increase of income amounted to \$382,418.11 the increase in current expenses was but \$215,826.65, leaving a balance of \$166,591.46 of income over expenses. This amount, together with an excess of half a million in repayments by municipalities and school boards of loans made to them from surplus insular revenues over new advances, was the principal factor in raising the treasury reserve available at the close of the year for expenditure, under appropriation, to \$1,794,554.46. This is an increase in the available balance as found at the close of 1911, in round

figures, of half a million, and of a million and a quarter over 1909, when the total amount available for expenditures had been reduced to the close margin of \$526,102.52. (See Table 2, Appendix III.) It has been the policy of the present administration to establish and maintain a treasury reserve of \$1,000,000 with which to meet emergencies, such reserve to be invested in public improvement bonds of the various municipalities, which can always be sold at par for cash in case the money is required. The cash reserve at the close of the year exceeded the maximum fixed because of the considerable excess of repayments over advances that had not at that time been reinvested. Municipal public works, however, are now under construction or projected that will not only absorb all available funds but require the sale of bonds upon the market. As the total indebtedness of the island is limited by law to 7 per cent of the assessed value of its property, these bonds, which bear 4 per cent interest and are free from local taxation, furnish unusually strong security and are in constant demand by conservative investors at a good premium. In this connection the relation of the following figures and items are of interest: Assessed value of the property of the island, \$178,275,000; total indebtedness, \$4,139,760; percentage of indebtedness, 2.3 per cent; per capita indebtedness, \$3.70, against an average of \$10.83 in the whole of the United States; per capita wealth, \$275; value of annual external commerce, \$92,000,000, as against \$17,500,000 11 years ago; balance of trade continuously in favor of the island—during 1911–12, \$6,778,940; per capita ad valorem property tax, \$1.42, as against an average of \$9.22 in the whole of the United States; the average ad valorem rate of taxation in Porto Rico is but 1.22 per cent. From the standpoint of taxation Porto Rico is especially favored, its central—"the Insular"—Government being substantially supported from the customs and excise taxes which in all other permanent territory of the United States go to the Federal Treasury. This accounts for the exceedingly low rates of property and other internal taxes of the island. The wisdom of maintaining a good treasury reserve with which to meet emergencies was well exemplified during this year, in June of which, by reason of the introduction of bubonic plague, causing a few human deaths, it became necessary to conduct an expensive campaign throughout the island for the extermination of rats, the carriers of the disease, involving the destruction of property and a more rapid correction of all insanitary conditions than could be economically done. There was no reason to anticipate this particular misfortune, but the money being available the authorities were able to begin the undertaking at once and vigorously prosecute the work, with the result that the disease was almost immediately controlled and confined, thus averting the loss of thousands of lives, millions of dollars in business, and a reduction of revenues that would have been disastrous to the public service.

The increase in the expenses of the insular government is due almost entirely to the support of the general sanitation service established by an act of the Legislative Assembly that became effective July 1, 1911. This service was reorganized and placed upon an efficient basis, which makes the constructive law one of the most potent if not the most potent for good of any among the statutes of the island, by an act that took effect April 1, 1912. According to both of these acts the new service supplants all of the sanitary activities of municipal



governments and takes its control from a central board of health and director of sanitation, whose jurisdiction in matters relating to sanitation is coextensive with that of Porto Rico. Its expenses are to be paid by the insular Government from appropriations by the legislature, but the municipalities turn into the insular treasury 12 per cent of their gross revenues as their share in its support, in lieu of the amounts previously expended by them upon their respective local sanitary departments. On account of the doubtful wording of the first-mentioned act, however, the attorney general so construed the law that but 8 per cent of municipal revenues were actually devoted to this purpose with the result that considerably less was received from municipal sources, during the first year, than had been anticipated, and the insular Government's share of the expense was proportionately increased. The total expense of this service paid during the last (its first) year was \$582,288.63, of which \$189,639.88 was contributed by municipal governments and the remainder, \$392,648.75, by the insular Government. The ambiguous wording of the first was clarified in the second act, and based upon present estimates the municipalities should, after July 1, 1912, contribute each year approximately \$295,000 to this purpose, which, as the total annual cost should not exceed \$600,000, will divide the expense about equally between the insular and municipal governments, the former, however, in the absence of further legislation, being compelled to meet any emergency expenses, such as for the treatment of epidemics, that may arise. Before the new service was organized the insular Government was spending \$92,000 per annum upon sanitation; hence the apparent annual increase of expense thereto on account of the present sanitation service will be approximately \$213,000.

The following summary of treasury transactions is intended to show at a glance the income and expenses as well as the receipts and disbursements from all sources and for all purposes during the year; also the total cash on hand, and the cash available for expenditure, at its close:

Customs revenue receipts during the year amounted to.....	\$1, 180, 592. 90
Internal-revenue receipts accruing to the insular Government, made up of \$36,440.06 from inheritance tax, \$162,876.71 from property tax, \$809,040.37 from tobacco tax, \$270,045.45 from license taxes, \$1,297,023.43 from the tax on spirits and liquors, and \$202,805.30 from other excise taxes, aggregated.....	2, 778, 231. 32
Receipts from fees, fines, and other miscellaneous sources amounted to.....	410, 339. 73
<hr/>	
Making the total actual revenues collected on account of the fiscal year 1911-12.....	4, 369, 163. 95
There also reverted to, and were paid into the Treasury on account of insular revenues, representing repayment of loans to municipalities and school boards, repayments of unexpended funds to appropriations, sales refunds to the working-capital account of the bureau of supplies, printing, and transportation, and various other minor transfers, aggregating in all.....	1, 067, 059. 48
<hr/>	
Making the total insular revenue receipts.....	5, 436, 223. 43
Receipts on account of trust funds, representing \$1,614,579.31 in property and school taxes, \$148,477.61 for the bond-redemption tax, and \$616,880.63 in miscellaneous receipts, all on account of municipalities, amounted to.....	2, 379, 937. 55
<hr/>	
Bringing the total receipts of the treasury for the year up to....	7, 816, 160. 98

This amount, added to the cash balance in the treasury at the close of 1910-11 of..... \$4, 015, 444. 25

Made the total to be accounted for..... 11, 831, 605. 23

To meet the current needs of the insular Government during the past year there was expended on account of the legislature..... \$58, 673. 37

To meet the disbursements of executive branches for all purposes..... 3, 362, 430. 05

For the support of the judiciary..... 461, 383. 91

And for miscellaneous purposes..... 127, 687. 61

Or a total of..... 4, 010, 174. 94

Further disposition of available funds in loans to municipalities and school boards, transfers and and repayments to appropriations, including repayable advances to the working-capital fund of the bureau of supplies, printing, and transportation (\$660,377.05), amounted to. 845, 494. 70

Brought the total amount expended and disposed of up to..... 4, 855, 669. 64

Reducing the amount at the disposition of the Government to.. 6, 975, 935. 59

Dispositions on account of trust funds, represented by payments to municipalities on account of taxes collected for them of \$1,758,127.09, to the road-bond fund of \$319,546.04, miscellaneous trust-fund accounts of \$1,685,821.03, and repayments and transfers \$89,058.29, in all, aggregating..... 3, 852, 552. 45

Reduced the amount to the credit of the government at the end of the year in available resources and trust funds to..... 3, 123, 383. 14

Segregating from this the amount representing funds held in trust for specific purposes..... 1, 328, 828. 68

There remains available for expenditure under legislative appropriation..... 1, 794, 554. 46

This statement shows a reduction in the total amount of cash in the treasury at the close of 1911 of \$892,061.01, which was brought about by the expenditure upon the irrigation project during the year of \$1,352,961.51 from the proceeds of the \$3,000,000 irrigation bond issue of 1907, making the total expenditure upon that work to June 30, 1912, \$2,391,259.97. The remainder of the proceeds from that loan will be sufficient to carry on the work until the first part of 1913, when a further issue of \$1,000,000, already authorized by the Legislative Assembly, will be made. The cost of this work when completed should not exceed \$5,000,000, which will be easily payable within 20 years by the district deriving the benefit therefrom and upon which it will be a direct charge.

Much has been said during the past year about the desirability of bringing all of the insular funds in New York to Porto Rico and depositing them in the local banks. These balances at the end of the year aggregated \$1,400,000, while the public funds deposited in the banks of Porto Rico amounted to \$1,723,383.14. This subject is ably discussed by the treasurer in his annual report attached hereto. There would be just ground for criticism of a treasury policy that would arbitrarily put away from the commercial use of the country the average cash balances which it is the policy of the Government to maintain, but the balances in New York at the end of the year represented trust funds, the proceeds of loans, etc., that were being disposed of as rapidly as possible and were therefore not of a character

that could be safely used by, or that it would be profitable to, local banks to pay interest upon. In fact, such funds, if used and depended upon, would be a menace to the business activities of the community, for their continual reduction would be a strain, and their sudden withdrawal probably disastrous. Sound banks will not accept and pay interest upon such funds unless their business is sufficiently extensive to strike a dependable average balance of all such funds, which is not at present possible in Porto Rico. An understanding of these conditions, together with the fact that the government balances will hereafter be closely invested in municipal improvement securities, should serve to remove this question from the necessity of further consideration.

The economic problem of Porto Rico, in line with the correct principles of popular government, is equitably to distribute among the people the benefits of the prosperity arising from the natural and developed conditions, and its solution, in so far as the Government can intervene, involves the extension of practical education and intelligent use of the taxing power.

## PUBLIC WORKS, BUILDINGS, AND LANDS.

### ROADS.

By the completion of 69 kilometers of highway during the past year, the total length of the insular road system was increased to 1,069.4 kilometers. Construction work during the year has established highway communication between 10 more municipalities, and has with the exception of but a few kilometers, completed the insular road entirely around the island. It has also given access to a number of interior points which have heretofore lacked proper transportation facilities. The most important of these connections with the interior is that by means of the Penuelas Road, completed during the past year, furnishing communication between Ponce, by way of Penuelas, and Guayanilla to Yauco and the principal coffee district, through to Mayaguez. Expenditures for road construction and maintenance during the year have amounted in all to \$718,265.50. The results obtained in the employment of convict labor, both in construction and maintenance work, have been so highly satisfactory as to remove any doubt as to the advantage of permanently continuing its use in public works. Road-construction work during the past two years, a considerable portion of which has been done by convicts, has averaged in cost \$5,500 per kilometer, or some \$500 less than when the work was done entirely under contract or by free labor. This reduction in cost has been secured in spite of the fact that much of the new construction work has been carried on in mountainous districts where heavy cuts through rock formation and extensive grading has been necessary. The average expense of maintenance has been \$304.42 per kilometer, also representing a slight reduction from the cost during 1910-11. The problem of maintenance is becoming difficult by reason of constant additions to the number of passenger and freight automobiles operated on the insular highways. Especially are the automobile trucks injurious to the older roads, most of which, while well constructed, were surfaced for slow-moving vehicles with metal tires. It is hoped through experiments with surface

preservatives of various kinds now in progress that a satisfactory means of protecting the roads against automobile wear will be found. Thus far the preservative that has apparently given the best results is an asphalt dressing now in use on about 20 kilometers of the road between San Juan and Caguas, subjected to the heaviest traffic. Among the most important road-construction projects now in progress and nearing completion are those from Manati to Arecibo, from Aguada to Anasco, and directly between San Juan and Bayamon. Although the last-mentioned road has been projected and the money available for its construction for some time, work was not started until recently, pending a settlement of the question as to whether the Federal Government or the insular government had jurisdiction over the swamp lands around San Juan Harbor, through which the road is to run. The control of the insular Government over these lands, however, was definitely determined through the recent establishment by the Secretary of War of the San Juan Harbor lines. Construction of the San Juan-Bayamon Road was thereafter immediately commenced and is now well under way. When completed it will be one of the most important roads in the island, for the reason that it will complete the road circuit of the island and serve as the natural means of approach to San Juan by land from the western and northwestern districts. It will also afford an adequate means of access to the extensive fruit section around Bayamon and the districts beyond which are now entirely dependent upon transportation by water across the bay.

#### TELEGRAPH AND TELEPHONE SERVICE.

The Government telegraph and telephone system now affords communication between 65 different municipalities. Many improvements in the service and renewals of equipment have been made and the service, while not yet up to a satisfactory point of efficiency, was materially improved during the year. A total of 247,860 messages were sent and received by the bureau of insular telegraph during the year ended June 30, 1912, an increase of 26,528 messages over the number transmitted during the previous year. The expense of maintenance and operation was \$69,566.23; cash receipts amounted to \$71,628.13, resulting in an apparent profit of \$2,061.90, in addition to the value of the service rendered free of charge to the Government. The sum of \$15,395.50 was spent from the special appropriation of \$25,000 made by the last Legislative Assembly for the reconstruction and extension of lines.

It is anticipated that the present government telephone and telegraph lines, with an extensive local and long-distance telephone system now being installed under authority of a private franchise recently granted, will, before the end of the present year, make every point in the island accessible by wire.

#### PUBLIC BUILDINGS.

The cost of repairs to public buildings during the past year has amounted to a little more than \$23,000. This work has been limited by the expediency of appropriating money for that purpose rather than by the necessities arising through the condition of the buildings

under maintenance. As stated in previous reports, most of the buildings used by the Government are of such ancient construction that their present rate of deterioration is high. In anticipation of the possibility of replacing the buildings with new and modern structures from time to time as resources will permit, it has been considered advisable to limit expenditures for the repair of old buildings to such work as is required to maintain them in a habitable condition.

Four new buildings have during the year been completed by contract and four by administration at a total cost of \$61,000. They include concrete school buildings at Vieques, Ciales, Aguada, and Vega Alta. Other building projects commenced and completed during the year have involved an expenditure of \$48,000, while other work to the value of \$96,000 is in progress, and plans for a number of additional buildings have been approved ready for advertisements for bids. The total amount involved in work under progress and contracted for at the end of the fiscal year was \$229,236.89.

#### PUBLIC LANDS.

Surveys of a number of tracts of public lands of more or less importance have been completed during the year, including the survey of a tract of some 2,000 acres in extent near Guayama. Leases for this and 74 other tracts of land have been completed.

By reason of the withdrawal of the United States naval forces from Porto Rico and an exchange of property with the Lighthouse Service, there has been transferred to the insular Government by the Federal authorities a large amount of land and buildings of considerable value in and around the city of San Juan. The property acquired includes four tracts of land, bordering on the harbor of San Juan, which constitute a material addition to the waterfront holdings of the insular Government that can be used to great advantage in the development of shipping and warehouse facilities. The acquisitions also embrace a number of substantial buildings formerly occupied by the naval forces on the water front, as well as extensive and valuable tracts of land along the military road in Puerta de Tierra.

The legislature authorized the commissioner of the interior to transfer to the city of San Juan the strip of insular land between the military road and the street railway track in Puerta de Tierra, to be converted into a public promenade; the sale of a strip of land some 90 acres in area, in Fajardo, to the Fajardo Development Co., for a right of way for a public service railway operated by that company; it approved the agreement entered into between the governor of Porto Rico and the commanding general, Department of the East, covering the proposed exchange of the insane asylum building and property, and the military hospital building at San Juan, for certain military reservation properties, in San Juan, Cayey, and elsewhere in the island; and it authorized the San Juan Harbor Board, with the approval of the executive council, to dispose of public lands adjacent to and in the vicinity of the harbor of San Juan, in connection with the port improvements to be undertaken by that board.

The insular Government now owns large tracts of land in the city of San Juan, and around the harbor of San Juan, as well as in other

parts of the island, that should be sold or leased under conditions that will result in their improvement and some benefit to the people of Porto Rico. The economic use of the public lands, for the benefit of its owners, The People of Porto Rico, has never received the intelligent consideration and energetic treatment which that subject requires, and it is a sad admission to make but nevertheless a fact that some of these lands within the larger towns of the island are even yet the site of insanitary and unwholesome conditions that make them a menace to the health of the communities occupying them and living upon adjacent premises. A correction of these conditions, however, has begun and will be urged forward as rapidly as possible with the instruments available.

#### HARBORS AND DOCKS.

The scarcity of adequate accommodations for vessels in the ports of the island is still a matter of much concern and study. Important progress toward an ultimate solution of the existing defects has, however, been made. A private company has completed a large and commodious dock and warehouse system at San Juan that will afford material relief, especially in the handling of sugar and other bulky cargo. A franchise was recently granted to the American Railway Co. under which work on another pier will soon be commenced, and other applications for permits to construct additional piers are now under consideration.

The last Legislative Assembly passed an act creating a harbor board for the port of San Juan and authorizing a \$500,000 bond issue to be used in the construction of water-front improvements. The board consists of the commissioner of the interior, the mayor of San Juan, and three import and export merchants of that city. The board has ample powers and will formulate comprehensive and detailed plans covering the improvements required and carry them through to completion. Considerable work on the required plans has already been completed, embracing the construction of bulkheads, the widening of the streets approaching and along the water front, the apportionment of warehouse space and railway terminal facilities. The Secretary of War recently approved tentative harbor lines at the port of San Juan, which will enable the harbor board to proceed with the work of developing the port facilities without further delay on that account. Congress has also authorized a survey of the harbor and the preparation of an estimate to be used as the basis for a Federal appropriation with which to complete the dredging thereof.

This work should be done at the same time with the shore improvements and in such manner as to assist in the general plans to improve the port as required by its increased and rapidly increasing commerce. With this in view, as well as the increased commerce which, if prepared to accommodate it, should be enjoyed by Porto Rico from the opening of the Panama Canal, it is earnestly urged that Congress be requested to make provision early during its next session for the dredging of San Juan Harbor as recommended by the United States Engineers.

A \$300,000 pier of modern type is under course of construction at Ponce. It will provide all necessary facilities for handling cargo

at that port for a long time to come. Plans for improving the port of Arecibo are under consideration, and improvements required at other ports of the island will receive attention in due time.

#### IRRIGATION PROJECT.

Favorable weather conditions have permitted even greater progress on the irrigation project than was hoped for at the beginning of the year. In accordance with an act of 1911 all new construction work is now being performed administratively by day labor. All contracts have been completed except the two for the Toro Negro and Carite Tunnels and for the Toro Negro Dam, and arrangements have been made for the cancellation of the latter and completion of the work by administration. Labor conditions have been fairly satisfactory. The demand for skilled labor in private enterprises has been so heavy that many skilled workmen for the operation of construction plants have of necessity been brought to the island from the United States. The supply of common labor has varied materially with the demand in the cane fields during the cane season, having been scarce and the wages controlled by the planters' scales. As an experiment a mess for common laborers was established at one of the construction camps, with decidedly satisfactory results, so far as the retention and control of the men is concerned. Although this mess and the three maintained for skilled laborers have not as separate propositions been financially successful; the immediate and great increase in the efficiency of the men, especially the common laborers, when furnished substantial and wholesome nourishment, is sufficient to have warranted furnishing them food free of charge, if necessary. Sanitary and health conditions receive special attention at all the construction camps and have at all times been favorable.

Eighty per cent of the Carite Tunnel work is finished and it is expected that it will be completed in November, 1912. The Toro Negro Tunnel, together with the concrete work in the diversion and distributing canals, has been completed. One-third of the work on the Patillas Dam is completed. This dam, 135 feet high and 1,000 feet long, crosses the Patillas River near the town of the same name. The dam and all construction work in connection therewith will, it is estimated, be brought to completion about December 31, 1913. The Carite Dam, which will be 110 feet high and 500 feet long, is nearly completed. The work on this dam and dependent structures will probably be finished by June, 1913. Construction work on the Guayabal Dam, another important structure, to be 115 feet high and 990 feet long is nearly 40 per cent completed and will, it is estimated, be terminated before July 1, 1913.

The other features of the irrigation project, including canals, syphons, power stations, etc., dependent upon the structures above mentioned, are all nearing completion and will be ready for use at the time of the termination of the work upon the main features.

In view of the favorable conditions that have attended the construction work on the irrigation project during the past year, it is estimated that it will be completed in its entirety during the early part of the year 1914.

The \$3,000,000 derived from the first sale of bonds will probably be expended by February 1, 1913. The additional bond issue of \$1,000,000 will be sold and that amount made available in January, 1913. Expenditures during the past year have amounted to \$1,352,961.51, making the total expenditures of this project up to June 30, 1912, \$2,391,259.97.

Further and more detailed information regarding public works completed, in course of construction, and projected will be found in the report of the commissioner of the interior, herewith submitted as Appendix IV.

### EDUCATION.

The average number of pupils in daily attendance in the public schools during the past year was 114,834, approximately 10 per cent of the population of the island. There were 160,657 pupils enrolled, an increase of 15,000 over the enrollment of the year before. The fact that since 12 years ago, when the plan of universal education was first inaugurated in Porto Rico, the enrollment has increased from 20,000 to over eight times that number is in itself somewhat gratifying, but the educational facilities at present afforded are far from sufficient. There are probably not less than 350,000 children of school age in Porto Rico, and with the present class-room accommodations and number of teachers, not half of them are reached. The school system is being extended, however, from year to year, the number of school buildings is being increased, and more teachers employed. During the past five years the enrollment has increased from 71,000 to 160,000, daily attendance from 44,000 to 114,000, and annual expenditures for public schools from \$908,000 to \$1,366,000. The number of pupils receiving some form of manual training has grown from none to 6,329, and the number receiving agricultural instruction from none to 8,723; public playgrounds have been established in 61 municipalities, and libraries in 225 schools, while school savings banks are maintained throughout the island.

Progress is apparent, but it represents a very small advance in view of the number of children still lacking educational opportunities. The amount appropriated for the purpose each year has been increased as much as it was believed the revenue of the Government would permit. There are many schools in the island that are properly equipped with the most modern furniture, improved facilities, and libraries. There are, on the other hand, many others that have little more than the few meager furnishings that are essential to the seating of pupils and the conduct of recitations. In many of these schools, in order to accommodate double the number of pupils, instead of having full day sessions, one set of students attends in the morning and the other in the afternoon.

In view of these conditions it is natural that during the past 12 years the whole attention of the department of education has been concentrated upon so extending the school system as to give some education to the greatest possible number of children. Now, however, more thought is being directed to the character of the instruction given. The importance of gradually including in the course of study as it advances some trade or vocational training is recognized. It is the purpose of the department to make the development of each



pupil's natural ability the primary object, so as to make their education of more practical use to them in life; to make the knowledge they acquire harmonize with and applicable to their environments and everyday activities; to give them the necessary mental discipline through the study of practical subjects; and to make their school work better qualify them, both mentally and physically, to take their places as useful members of society, with a respect for labor, capable of sustaining themselves and their dependents in accordance with modern standards of civilization—of being potential and good citizens of the Republic. Some progress toward that end has already been made, and the carrying out of the plan in full is only a question of time and the appropriation of sufficient money for the purpose.

The manual-training and domestic-science courses at present established include work in the carpenter shop, cooking, and sewing of all kinds. Instruction in agriculture is given by means of practical demonstrations and work, as well as through the medium of lectures, appropriate text books and other literature, and embraces the study of seeds, their selection and treatment; soils and their preparation; cultivation, identification, and care of plants; segregation, grafting, and propagation; insect pests and diseases; domestic animals, poultry and dairying; and other pertinent subjects.

High schools are maintained in San Juan, Ponce, Mayaguez, and Arecibo. Each of these schools affords a regular four-year course, and in addition thereto a two-year commercial course. Certificates from them are accepted by the leading colleges and universities in the United States, where a number of graduates are now studying. The commercial course of two years embraces the advanced study of the English and Spanish languages, bookkeeping, stenography, typewriting, business arithmetic, and commercial law.

The educational system of the island is completed by the University of Porto Rico, where a college of liberal arts, an agricultural and a training school for teachers are maintained. This institution is comparatively new, and the opportunities for higher education afforded by it are gradually being extended to meet requirements as the number of students increase.

An extensive discussion of the educational system of the island and review of its work will be found in the report of the commissioner of education in Appendix V herewith.

#### JUDICIARY.

Three new municipal courts were created by an act of the Legislative Assembly of 1912, at Camuy, Ciales, and Rio Piedras, and an act was passed making the positions of judge, secretary, and marshal of the municipal court of Vieques elective. Heretofore these positions, unlike similar positions in the other municipal courts in the island, were filled by appointment by the governor and, in view of the fact that it is believed that these positions in the municipal courts should all be made appointive instead of elective, in order that they may be free from the possibility of political influence, the only reason that the act as approved was to make the status of the positions in the Vieques court conform to that of similar positions in other municipal court districts. Creation of new justice of the peace courts were at the same time authorized for Guanica, Las Piedras, Luquillo,

Caiba, Catano, and Guaynabo. Inasmuch as the new judicial district of Camuy embraces the jurisdictions of Camuy, Coamo, and Arecibo, the peace courts in those places were abolished, and with the establishment of a municipal court at Rio Piedras the peace court at that place was also abolished.

Much work has been performed by the courts of the island during the year and they have consistently maintained the reputation already established by them for promptness in the dispatch of cases brought before them. The supreme court disposed of 230 appeals, 141 in civil and 89 in criminal cases. The People of Porto Rico was interested in 91 of these appeals, 89 being criminal cases in which it was the appellee. Of these 89 cases, 8 were dismissed; in 72 the decision of the district court was affirmed, and in but 10 were the decisions of the lower court reversed. The district courts disposed of 2,177 criminal and 2,876 civil cases during the year. Two hundred and seventy-four jury trials in criminal cases were held, resulting in 184 convictions and 90 acquittals, making the general average of convictions in jury trials a little more than 67 per cent. The prosecuting attorneys investigated 1,958 criminal complaints, of which 958 were dismissed and the remainder, 1,000, made the bases of criminal actions filed in the district courts. The municipal courts disposed of 36,310 criminal cases and 3,181 civil cases, and appeals were taken in only 842 of the former and 174 of the latter.

One of the most important tasks that has been completed by the department of justice during the year was the publication in indexed volumes in the Spanish and English languages of the decisions of the supreme court. The department has also inaugurated the plan of the publication by the supreme court of current decisions in pamphlet form as soon as rendered. The value of the publication of the decisions of this court in these two forms is apparent to anyone who has encountered the difficulties experienced in the past of reference to or securing copies of this court's decisions.

The third volume of the opinions of the attorney general has also been published, making accessible in convenient form for reference the views of that office concerning many legal questions with respect to matters of interest to government officials and others that have been submitted to its consideration up to a recent date.

A concise explanation of the judicial system of Porto Rico, with detailed information of the work accomplished during the past year, will be found in the report of the attorney general submitted herewith as Appendix VI.

On two different occasions there has been presented to the local legislature a bill to provide for the retirement of judges of the supreme court at a proper age with suitable compensation. The matter has also been submitted to the United States Congress for its consideration, but neither body has as yet made a satisfactory disposition thereof. It is obvious that some such provision should be adopted with reference to the members of the supreme court of Porto Rico, who, in accordance with the organic act, are appointed for life by the President. The men appointed to these positions must of necessity possess the highest qualifications in the profession of law. The acceptance of the responsibilities of their office for the small compensation paid by the Government for their services, necessitating as it does the abandonment of their private practice, represents as a rule

a material sacrifice of personal interests that entitles them to this recognition. It is again recommended that an act be passed by Congress providing that upon completion of 10 years of service on the supreme bench and upon reaching the age of 65 members thereof may retire from office and receive thereafter during life compensation at the rate of three-fourths of that received during active service.

## LABOR, CHARITIES, AND CORRECTIONS.

### LABOR.

The first definite step toward the activity of the insular Government in matters affecting laborers and labor conditions in the island is represented in the passage by the last Legislative Assembly of an act providing for the establishment of a bureau of labor, the functions of which are to investigate general labor conditions, attend to the enforcement of laws enacted for its protection, exercise its good offices for the maintenance of satisfactory relations between employers and employees, and to suggest such legislation as its investigations may indicate to be necessary. The new organization was made a bureau of the department formerly known as the department of health, charities, and correction, and, inasmuch as the functions of that department with reference to health and sanitation were by the provisions of the new sanitation law transferred to the sanitation service, the act creating the bureau of labor at the same time provided that this department shall be known as the department of labor, charities, and correction. The act provided that the new bureau should commence its activities July 1, 1912, for which reason no work has as yet been done by the bureau to date to be discussed in this report.

### CHARITABLE INSTITUTIONS.

*Insane asylum.*—On June 30, 1911, there were 334 patients in the insane asylum and 113 were admitted during the year, making the total number treated 447. Of these 64 were discharged, 35 having been cured and 39 sufficiently improved to enable friends or relatives to give them proper attention. The asylum officials are still confronted with the difficulty of properly caring for the inmates by reason of the fact that the building used as an asylum is inadequate and far too small for the purpose. Aside from the fact that the structure in use is overcrowded, there are probably not less than 200 persons afflicted with mental disorders in the various municipalities of the island who should be undergoing treatment in the asylum, but in which there are no accommodations for them. The carrying out of plans for the construction of a new insane asylum at Cayey is still awaiting the passage by Congress of a bill now before it concerning an exchange of certain insular government property for a portion of the military reservation at Cayey.

*Asylum for the blind.*—The asylum for the blind at Ponce gave treatment during the year to 169 patients. Of these 126 were found to be suffering from curable disorders of the vision and 80 left the institution completely cured.

*Boys' charity school.*—There were 264 boys in the boys' charity school at the end of the fiscal year, ranging in age from 4 to 19 years.

During the year 62 boys graduated from the school, having received therein a common school education and training in some useful trade or vocation. The boys' band has been kept up to the same standard that has been maintained by it in the past and has given many public concerts during the year. A number of articles made in the carpenter, plumbing, and other shops of the school, exhibited at the last insular fair, were awarded prizes.

*Girls' charity school.*—This school had 165 inmates ranging in age from 4 to 17 years on June 30, 1912. There were 47 girls admitted and 32 graduated during the year. In addition to the common school education, more attention during the past year has been devoted to training the girls in the performance of domestic duties. A modern cooking school and laundry has been installed, and the results accomplished in these departments and in the sewing, lace work, and embroidery classes have been the subject of favorable notice. Articles made by these girls received prizes in the last insular fair, and there is a demand for the lace and embroidery work, not only among people in the island but among persons in the United States who have visited Porto Rico, that far exceeds the supply.

#### PENAL INSTITUTIONS.

On June 20, 1912, there were 1,585 prisoners serving penal sentences; there were 6,341 commitments during the year and 6,527 releases. The total cost of maintaining the insular penal institutions was \$184,998.93. Much of this expense was reimbursed to the Government, however, in labor performed by convicts under legislative authority in the construction of roads. The actual value of the services thus rendered during the year was \$86,475.50. The results secured from the employment of convict labor on the insular roads during the past two years have been highly satisfactory, not only to the department in charge of the construction work, in increased economy, but to the penal authorities in a material improvement in the health of the men so employed, and in simplifying the problems of their maintenance and control.

There were 532 inmates in the penitentiary at San Juan on June 30, 1912, of these 73 being women. The deplorable conditions existing in this institution due to lack of sufficient space in both the men's and women's departments is a matter of great concern to the authorities. Plans for a modern penal building and farm have been under consideration for several years, the most suitable location being a tract of land near Cayey adjacent to the site of the proposed asylum for the insane, of which the insular Government has for some time hoped to secure control, through the exchange of property agreed upon between Gen. Leonard Wood and Gov. Post, approval of which was granted by the Legislature of Porto Rico. In this connection, attention is again invited to the recommendation made in previous annual reports that favorable action be taken by Congress on the bill now pending therein concerning this exchange.

A number of additions to and improvements in the building occupied by the reform school for boys at Mayaguez were made during the year, so that the institution is now well equipped for the proper care and training of its inmates. The number of boys in confinement

during the year averaged 98 per day. There was a daily attendance in the common education classes of 86; in the carpentry classes of 24; in the tailoring classes of 15, and in the shoemaking classes of 11. The tailor and shoemaker shops, while furnishing all the garments and shoes required for the inmates during the year, afforded the boys employed therein a training that will be of value to them when the time arrives for them to leave the institution.

#### AUDITING AND ACCOUNTING.

The modern and effective system of government accounting, referred to in the last annual report, is gradually being installed, and will in a very short time entirely replace the antiquated and inefficient methods formerly employed in the attempt to control the use of government funds and property. The results already accomplished in simplifying accounts and fiscal transactions, and in the control and protection of property, fully justify the labor and expense that have been required to secure them. The new system is based upon asset and liability accounting and the books of the auditor at the end of the fiscal year just closed presented the first general balance between the assets and liabilities of the Government of Porto Rico. However, as the value of all of the public buildings and real property has not yet been taken up in the account, and the showing of the balance sheet would therefore not at this time be complete, it has not been included in the financial statements accompanying the auditor's report, which as in the past are based entirely upon cash transactions.

The method of vouchering and settling claims has been materially improved. Much duplication and useless paper work has been eliminated and transactions simplified in numerous other respects. The method of the settlement of claims by payable draft vouchers, a combined voucher and check, instead of checks drawn upon separate vouchers, supported by bills or statement of accounts has been adopted. This innovation alone has eliminated more than 50 per cent of the documents and signatures formerly required.

The property accounting, which in the absence of any system of property records, was undertaken not more than two years ago, is complete, as indicated above, with the exception of the valuation of certain buildings and tracts of government land, which will be taken up in the near future and will conclude the work of placing all accounts on an asset and liability basis, making this government's system of accounting on a par with those employed by modern business concerns.

General and detailed statements showing the cash transactions of the insular and municipal governments will be found in the auditor's report, submitted herewith as Appendix VIII.

#### CONCLUSION.

The insular administration with the free cooperation of substantially all elements with which it has had to deal has, through the faithful service of its members and employees, kept pace with the development that has taken place and endeavored to create new opportunities for further improvement.

It has been a pleasure to record the principal incidents and to describe briefly the conditions which combined have made this the most prosperous year in the history of Porto Rico, but the most profound satisfaction comes from the fact that the increasing industry and efficiency of the people have been the chief factors in producing the happy results shown. The influence of the public schools is conspicuous throughout the island. The masses are beginning to think for themselves and more distinctly to realize their rights and obligations as independent members of the body politic. The number who are willing to be driven or guided by influences contrary to their own good and the common welfare of the community is rapidly diminishing. Pride in their Territory, in its institutions, and in the Republic which has given them an opportunity to become, in the full sense of the word, freemen is strong and continually increasing. They are citizens of Porto Rico, but although subjects of the United States, under whose influence they have been educated during the past 14 years, they are not yet citizens of the common country. They wish to be; it has been promised them since 1898 by all responsible representatives and political parties of the United States, and they do not understand why it has been denied them. This delay in granting citizenship to The People of Porto Rico is the chief and practically the only cause of whatever discontent, doubt, and confusion exist in the island. It is the only obstacle to the good understanding and relations of confidence between the two races which are essential to the best interests of all concerned. Without unnecessary delay it should be removed.

Very respectfully, your obedient servant,

GEO. R. COLTON,  
*Governor of Porto Rico.*

The SECRETARY OF WAR,  
*Washington, D. C.*



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## APPENDIXES.

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## APPENDIX I.

### EXHIBITS TO THE REPORT OF THE GOVERNOR.

#### EXHIBIT A.

LIST OF ACTS AND RESOLUTIONS PASSED BY THE SIXTH LEGISLATIVE ASSEMBLY OF PORTO RICO, SECOND SESSION, JANUARY 8 TO MARCH 7, 1912; AND BY THE EXTRAORDINARY SESSION OF THE SIXTH LEGISLATIVE ASSEMBLY, MARCH 8 TO 14, 1912, AND APPROVED BY THE GOVERNOR.

An act appropriating a sum of money not to exceed \$400 in order that Porto Rico may be represented at an extraordinary convention where conferences on instruction and legislation in connection with the medical profession will be held, which convention will be held on the 26th and 27th of February, 1912, approved February 19, 1912.

An act to amend an act entitled "An act to regulate the reconveyance by the municipality of San Juan of certain lands conveyed to it under the provisions of a joint resolution entitled 'Joint resolution to authorize the commissioner of the interior to sell to the municipality of San Juan certain lands lying to the east of the city of San Juan, at the place known as Puerta de Tierra, belonging to The People of Porto Rico; and prescribing the conditions thereof, and for other purposes,'" approved September 3, 1910, approved February 21, 1912.

An act authorizing the municipality of Ponce to appropriate \$1,250 to cancel the debt contracted for the completion of the firemen's mausoleum in the cemetery of said city, from the balance remaining from the loan of 1902 to the credit of the appropriation for "Construction of a civil cemetery," approved February 21, 1912.

An act providing for the maintenance of scholarship students in the college of agriculture of the University of Porto Rico for the fiscal year 1911-12, approved February 26, 1912.

An act to punish the taking of vehicles, vessels, or animals, for the purpose of temporarily operating or using the same, approved February 27, 1912.

An act to provide for the completion of the road between Vega Baja and Morovis, approved February 28, 1912.

An act to reimburse the commissioner of education for expenditures made by him, approved February 28, 1912.

An act to provide for an appropriation for the expenses of publishing the decisions of the Supreme Court of Porto Rico and to purchase certain law books for the district courts of Porto Rico, and for other purposes, approved February 28, 1912.

An act to amend section 2 of the notarial law, approved March 8, 1906, as amended by an act entitled "An act to amend section 2 of an act entitled 'An act to regulate the practice of the notarial profession in Porto Rico,' approved March 8, 1906," of March 10, 1910, approved February 29, 1912.

An act to amend sections 37 and 39 of the municipal law, approved March 2, 1912. (Relative to the appointment of municipal secretaries and treasurers.)

An act to amend an act entitled "An act to authorize the municipalities for one year to regulate the sale of fresh meats," approved March 9, 1911, approved March 2, 1912.

An act to amend section 61 of the municipal law, regarding maintenance of municipal pharmacies and the purchase of drugs, approved March 4, 1912.

An act to place under the supervision and control of the Supreme Court of Porto Rico the publication of the opinions of said court, and making an appropriation therefor, approved March 5, 1912.

An act to authorize municipalities, under proper ordinance, to appropriate funds for the payment of or contributions to orchestras or bands on account of music furnished at public concerts or upon public occasions, approved March 6, 1912.

An act to amend an act entitled "An act to authorize the issuance by the insular government of Porto Rico of bonds to the amount of \$425,000, and for other purposes," approved March 6, 1912. (Providing for a road commission, etc.)

An act to amend an act approved March 7, 1911, entitled "An act to declare certain piers, wharves, and other places public utilities; to give the executive council the

power to regulate their charges and practices; to amend the acts concerning the condemnation of private property for public purposes, approved March 12, 1903, and March 11 and 12, 1908, and for other purposes," approved March 6, 1912.

An act authorizing and directing the commissioner of the interior to transfer to the municipality of San Juan, Porto Rico, a certain parcel of land, approved March 6, 1912.

An act appropriating a sum of money not to exceed \$1,000 for the purpose of having Porto Rico represented at the International Tuberculosis Congress, to be held in San Sebastian, Spain, from the 9th to the 16th of September, 1912, approved March 6, 1912.

An act to create certain peace courts, to fix the salaries of certain justices and secretaries of peace courts, and for other purposes, approved March 6, 1912.

An act to furnish the reform school of Mayaguez with a gasoline launch, and to provide compensation for the person who shall operate the same, approved March 6, 1912.

An act to provide for the publication of a digest of the decisions of the Supreme Court of Porto Rico and the opinions of said court on loose sheets, approved March 6, 1912.

An act to create the municipal judicial district of Camuy, to abolish certain peace courts, and for other purposes, approved March 6, 1912.

An act to amend an act entitled "An act to amend an act entitled 'An act to protect Porto Rican cigars from fraudulent misrepresentation, by providing for adequate expert inspection, and the issue of stamps of guarantee covering the origin of tobacco used in the manufacture of such cigars, intended for exportation,' approved March 10, 1910," approved March 9, 1911, approved March 7, 1912.

An act to confer power upon municipal councils to regulate by ordinance the running at large of domestic animals, approved March 7, 1912.

An act to amend an act entitled "An act to establish a law of private corporations," approved March 9, 1911, and for other purposes, approved March 7, 1912.

An act to amend Chapter I of the act entitled "An act to determine judicial proceedings in cases of lunacy, and to provide for the admission of and discharge of patients in the insane asylum," approved March 14, 1907, approved March 7, 1912.

An act to fix certain fees for administering oaths upon bills of lading and manufacturers' bonds, approved March 7, 1912.

An act to indemnify First Class District Chief Francisco Cabrera for the losses sustained by him on account of the fire which took place in the garage of the bureau of supplies, printing, and transportation, and the children of the laborer José Santos for damages on account of the death of said laborer at said fire, approved March 7, 1912.

An act authorizing the municipality of Arecibo to invest during the current fiscal year the balance of \$4,553.61 remaining from the preceding fiscal year in works of public utility, approved March 7, 1912.

An act to amend section 6 of "An act providing for the organization of a board of pharmacy," approved March 8, 1906, and amended March 10, 1910; approved March 7, 1912.

An act to amend article 125 of the mortgage law of Porto Rico, approved March 7, 1912.

An act to amend "An act to establish a system of local government, and for other purposes," approved March 8, 1906; approved March 7, 1912.

An act to amend articles 153 of the mortgage law and 132 of the regulations governing the execution thereof, approved March 7, 1912.

An act to amend section 31 of an act entitled "An act to amend chapter II, title IX, of the political code, and to repeal certain sections of the penal code, and for other purposes," approved March 9, 1905, and for other purposes. approved March 7, 1912. (Documentary fees.)

An act to amend article 36 of the code of commerce of Porto Rico, to authorize the use of seals by municipal judges and justices of the peace, and for other purposes, approved March 7, 1912.

An act to prevent the misbranding and mislabeling of paints and misrepresentations regarding the composition thereof, and to require a statement of the weights or measures thereof, and to provide penalties for violations, approved March 7, 1912.

An act to authorize the government of the island of Culebra to make disposition of certain unexpended funds, approved March 7, 1912.

An act to create an emergency fund for use in the control and suppression of epidemics, and for other purposes, approved March 7, 1912.

An act to amend section 66 of the political code, to provide for the appointment of a fiscal for the supreme court, to define his duties, and for other purposes, approved March 7, 1912.

An act authorizing municipalities to grant the use of lots to applicants for the construction of buildings thereon; to legalize cessions of the same character made by municipalities from July 1, 1902, up to the date on which this act becomes effective, and for other purposes, approved March 7, 1912.

An act to amend an act entitled "An act to establish a law of private corporations," approved March 9, 1911, in such manner as to authorize the organization and registration of banks and insurance companies, approved March 7, 1912.

An act amending an act entitled "An act making appropriations for the necessary expenses of carrying on the Government of Porto Rico for the fiscal year ending June 30, 1912, and for other purposes," approved March 7, 1912.

An act to authorize the treasurer of Porto Rico to invest an amount not exceeding \$200,000 in first-mortgage bonds of the corporation to which may be awarded the concession for the construction of the tourist hotel mentioned in sections 3, 4, 5, and 6 of an act approved September 3, 1910; approved March 7, 1912.

An act providing for the repatriation of Porto Rico emigrants residing in Mexico, approved March 7, 1912.

An act to authorize the issuance of bonds of The People of Porto Rico to the amount of \$500,000 for port improvements at San Juan, approved March 7, 1912.

An act to amend sections 1, 6, 9, 12, and 13 of "An act to establish a law of civil register," approved March 9, 1911; approved March 7, 1912.

An act to authorize the governor of Porto Rico to convey to the United States certain properties, approved March 7, 1912.

An act to amend section 355 of the political code regarding the taxation and regulation of insurance companies, and for other purposes, approved March 7, 1912.

An act authorizing the expenditure of \$10,000 for the purpose of maintaining a sanitarium and combating tuberculosis, approved March 7, 1912.

An act to amend "An act providing for the return and cancellation of substituted bonds executed by registrars of property and notaries," approved March 9, 1911; approved March 7, 1912.

An act to create the municipal judicial district of Ciales, to abolish the peace court of Ciales, and for other purposes, approved March 7, 1912.

An act to provide funds to be used by the board of commissioners of agriculture, approved March 7, 1912.

An act to create the municipal judicial district of Rio Piedras, to abolish the peace court of said town of Rio Piedras, and for other purposes, approved March 7, 1912.

An act authorizing the sale at public auction of a parcel of land the property of The People of Porto Rico, approved March 7, 1912.

An act to reorganize the municipal court of Vieques and for other purposes, approved March 7, 1912.

An act to amend an act entitled "An act to establish the University of Porto Rico," approved March 12, 1903; approved March 7, 1912.

An act to constitute Guainabo into a separate municipality, approved March 7, 1912.

An act authorizing registrars of property to officially cancel certain entries, notations, and mortgages in the books of the registries, approved March 7, 1912.

An act to authorize the construction of a building on the grounds of the United States experimental station at Mayaguez, P. R., approved March 7, 1912.

An act to amend section 329 of the penal code of Porto Rico, approved March 7, 1912. (Defining a public nuisance.)

An act to constitute into a separate municipality the village of Hormigueros, approved March 7, 1912.

An act amending section 411 of the political code, approved March 7, 1912. (Construction or extension of public buildings.)

An act to amend sections 1 and 2 of "An act to fix the right of way of insular and municipal roads," approved March 14, 1907; approved March 7, 1912.

An act authorizing municipalities to levy a bond-redemption tax in connection with advances or loans made to them by The People of Porto Rico, approved March 7, 1912.

An act to amend sections 1195, 1247, and 1640 of the civil code, approved March 7, 1912. (Private and public instruments.)

An act to amend an act entitled "An act to amend chapter II, title IX, of the political code and to repeal certain sections of the penal code, and for other purposes," approved March 9, 1905; approved March 13, 1912. (Tax on beer.)

An act to provide for the construction of a district jail for the judicial district of Aguadilla, approved March 13, 1912.

An act to exempt certain teachers from annual examinations in English, approved March 13, 1912.

An act to provide for the construction of an insular building in the city of Guayama, approved March 13, 1912.

An act for the purpose of making additional appropriations for the support of the Government of Porto Rico and for supplying certain deficiencies in previous appropriations, and for other purposes, approved March 13, 1912.

An act providing for the creation and maintenance of an Institute of Tropical Medicine, and for other purposes, approved March 13, 1912.

An act to provide for refund of taxes paid on samples of taxable articles imported into Porto Rico for use in soliciting business, if same are exported within specified time, approved March 13, 1912.

An act to dissolve certain domestic corporations, approved March 14, 1912.

An act authorizing the municipality of Fajardo to expend, during the current fiscal year for works of public utility, the surplus of \$2,675.62 remaining from the preceding fiscal year, approved March 14, 1912.

An act authorizing the municipality of Adjuntas to expend in works of public utility the sum of \$4,015.14 from the surplus remaining at the close of the fiscal year 1910-11, approved March 14, 1912.

An act to amend paragraph (e) in section 291 of the political code, approved March 14, 1912.

An act appropriating funds for the health officers and sanitation of the municipality of Guainabo, approved March 14, 1912.

An act to appropriate \$10,000 for repairs, maintenance, and construction of docks, bulkheads, and water fronts, and for other purposes, approved March 14, 1912.

An act to amend section 85 of "An act to provide for registration and elections," approved March 8, 1906; approved March 14, 1912.

An act making appropriations for the necessary expenses of the special session of the sixth Legislative Assembly of Porto Rico, approved March 14, 1912.

An act to reorganize the sanitation service, approved March 14, 1912.

An act making appropriations for the necessary expenses of carrying on the Government of Porto Rico for the fiscal year ending June 30, 1913, and for other purposes, approved March 14, 1912.

An act to establish a minority representation in the House of Delegates, for each electoral district, and for other purposes, approved March 14, 1912.

An act to establish a bureau of labor, and for other purposes, approved March 14, 1912.

An act to provide for the construction of certain bridges and culverts on road No. 3, approved March 14, 1912.

Joint resolution to cede to the municipality of Las Marias, for the purpose of constructing a new public slaughterhouse, a lot the property of The People of Porto Rico, approved March 6, 1912.

Joint resolution to grant to the estate of the Hon. Martin E. Gill a certain amount of money, approved March 7, 1912.

Joint resolution empowering the municipality of San German, P. R., to execute deeds transferring dominion over certain lots which were the property thereof, and which it sold to private parties for purposes of improvement, approved March 7, 1912.

Joint resolution to permit the trustees of the University of Porto Rico to expend money from the "university fund" for improving the grounds and furnishing the building of the college of agriculture at Mayaguez, P. R., approved March 7, 1912.

Joint resolution providing for the construction of a central high school building in the municipality of San Juan, and for other purposes, approved March 7, 1912.

Joint resolution to provide for the admission of Juan B. Arrillaga Roqué to the practice of his profession of pharmacy in Porto Rico, approved March 7, 1912.

Joint resolution authorizing the publication in Spanish of 1,000 copies of the book entitled "Uncinariasis in Porto Rico," by Drs. Bailey K. Ashford and Pedro Gutiérrez Igaravidez, approved March 7, 1912.

Joint resolution providing for the appointment of a commission to secure a Federal appropriation for the dredging of the harbor of San Juan, P. R., approved March 7, 1912.

Joint resolution to send to Spain a commission to represent Porto Rico in the centennial celebration of the courts of Cadiz and the Constitution of 1812, to appropriate the sum of \$5,000 to defray the expenses of said commission and to erect a modest monument to the memory of Ramón Power, and for other purposes, approved March 7, 1912.

Joint resolution to provide for the representation of Porto Rico at the Panama-Pacific International Exposition to be held at San Francisco, Cal., in 1915, approved March 7, 1912.

Joint resolution to organize a commission to study a banking law and for other purposes, approved March 7, 1912.

Joint resolution to reimburse Mr. E. D. Delgado for the loss of money suffered while acting as special disbursing officer for the irrigation service, approved March 7, 1912.

Joint resolution authorizing the municipality of Aguadilla to pass a supplementary budget, appropriating sums of money for certain purposes, approved March 7, 1912.

Joint resolution to provide for permanent exposition grounds for the insular fair and other purposes, and appropriating \$35,000 therefor, approved March 13, 1912.

Joint resolution making appropriations to supply deficiencies in appropriations for the fiscal year ending June 30, 1912, and for fiscal year ending June 30, 1911, approved March 13, 1912.

Joint resolution to provide for the promotion of the commerce, industries, and agriculture of Porto Rico and for other purposes, and appropriating \$25,000 therefor, approved March 14, 1912.

Joint resolution to grant a subvention to Miss Alice Felici that she may continue to pursue artistical studies in Paris, France, approved March 14, 1912.

Joint resolution to send to Washington a committee to inform the National Government of the serious damages which would be caused The People of Porto Rico by the repeal of Schedule E, item 216, of the tariff act of 1909, and to appropriate the sum of \$15,000 to defray the expenses of said committee, and for other purposes, approved March 14, 1912.

Joint resolution providing for the appointment of a property clerk and quarters for the purpose of carrying out the work of the publication of the opinions of the supreme court of Porto Rico, approved March 14, 1912.

## EXHIBIT B.

### *List of appointments by the governor during the fiscal year 1911-12.*

#### JUDICIAL APPOINTMENTS.

Fiscal of supreme court, March 11, 1912.

Secretary of supreme court, July 1, 1911.

District courts:

Judges—

Aguadilla, June 27, 1912.

Arecibo, July 1, 1911.

Guayama, July 1, 1911.

Humacao, July 1, 1911.

Mayaguez, July 1, 1911.

Ponce, July 1, 1911.

San Juan, section 2, July 1, 1911.

San Juan, section 2, October 14, 1911.

Fiscals—

Guayama, July 1, 1911.

Humacao, May 1, 1912.

Mayaguez, July 1, 1911.

Ponce, May 4, 1912.

Special fiscal at large, July 1, 1911.

Marshals:

Guayama, November 3, 1911.

Mayaguez, November 24, 1911.

Municipal courts:

Judges—

Aguadilla, April 12, 1912.

Arecibo, July 14, 1911.

Arecibo, September 2, 1911.

Barros, July 14, 1911.

Bayamon, July 14, 1911.

Bayamon, September 2, 1911.

Cabo Rojo, July 21, 1911.

Cabo Rojo, October 9, 1911.

Cabo Rojo, November 24, 1911.

Carolina, October 9, 1911.

Camuy, April 12, 1912.

Ciales, June 27, 1912.

Mayaguez, July 7, 1911.

Patillas, March 23, 1912.

Ponce, July 1, 1911.

Rio Piedras, June 27, 1912.

Salinas, July 21, 1911.

Salinas, November 24, 1911.

San German, October 14, 1911.

San German, October 27, 1911.

San Juan, July 1, 1911.

Municipal courts—Continued.

Judges—Continued.

San Juan, October 27, 1911.

San Lorenzo, July 1, 1911.

San Sebastián, December 28, 1911.

Yauco, March 29, 1912.

Secretaries—

Aguadilla, June 27, 1912.

Camuy, April 12, 1911.

Ciales, June 27, 1912.

Patillas, March 29, 1912.

Rio Piedras, June 27, 1912.

Salinas, June 7, 1912.

Assistant Secretaries—

Ponce, July 1, 1912.

Marshals—

Aguadilla, March 29, 1912.

Bayamon, March 29, 1912.

Camuy, April 12, 1912.

Ciales, June 27, 1912.

Fajardo, September 15, 1911.

Guayama, April 20, 1912.

Rio Piedras, June 27, 1912.

Vieques, August 11, 1911.

Justices of the Peace:

Agua Buenas, July 14, 1911.

Caguas, October 20, 1911.

Carolina, September 30, 1911.

Cataño, June 27, 1912.

Ceiba, June 27, 1912.

Guanica, June 27, 1912.

Guainabo, June 27, 1912.

Hormigueras, June 27, 1912.

Las Piedras, June 27, 1912.

Luquillo, June 27, 1912.

Mayaguez, October 14, 1911.

Naguabo, July 21, 1911.

Salinas, August 25, 1911.

Registrars of property:

Caguas, June 7, 1912.

Municipal appointments:

Alcaldes—

Agua Buenas, October 14, 1911.

Agua Buenas, April 18, 1912.

**Municipal appointments—Continued.****Alcaldes—Continued.**

Bayamon, December 5, 1911.  
 Coamo, July 7, 1911.  
 Corozal, September 22, 1911.  
 Guainabo, April 12, 1912.  
 Guayanilla, April 12, 1912.

**Municipal appointments—Continued.****Alcaldes—Continued.**

Hormigueros, April 7, 1912.  
 Morovis, July 28, 1911.  
 Naguabo, September 2, 1911.  
 Toa Alta, August 4, 1911.  
 Toa Baja, July 28, 1911.

**APPOINTMENTS TO FILL VACANCIES IN MUNICIPAL COUNCILS.**

Adjuntas, 2.  
 Aguadilla, 1.  
 Aguas Buenas, 4.  
 Arecibo, 2.  
 Arroyo, 2.  
 Barceloneta, 1.  
 Bayamon, 6.  
 Cabo Rojo, 1.  
 Caguas, 1.  
 Cayey, 2.  
 Ciales, 2.  
 Cidra, 1.  
 Coamo, 1.  
 Comerio, 1.  
 Corozal, 2.  
 Fajardo, 1.  
 Guainabo, 5.  
 Guayama, 3.  
 Guayanilla, 1.  
 Hatillo, 2.  
 Hormigueros, 5.  
 Juana Diaz, 4.  
 Juncos, 2.

Lajas, 2.  
 Las Marias, 1.  
 Loiza, 2.  
 Manatí, 4.  
 Maunabo, 2.  
 Mayaguez, 2.  
 Morovis, 1.  
 Naranjito, 1.  
 Patillas, 2.  
 Quebradillas, 1.  
 Rio Grande, 2.  
 Sabana Grande, 2.  
 San German, 1.  
 San Juan, 3.  
 Santa Isabel, 1.  
 Toa Alta, 1.  
 Toa Baja, 1.  
 Trujillo Alto, 1.  
 Utuado, 1.  
 Vega Baja, 1.  
 Vieques, 2.  
 Yabucoa, 1.

**MISCELLANEOUS APPOINTMENTS.****Insular fair board:**

F. Manuel Toro, July 5, 1911.  
 John A. Wilson, March 26, 1912.  
 Antonio R. Barcelo, May 1, 1912.

**Board of trustees, insular library:**

T. E. Edwards, July 7, 1911.

**Board of review and equalization:**

Rafael Castro Gonzalez, July 7, 1911.  
 William Reifkohl, July 7, 1911.

**Insular police commission:**

Juan R. Baiz, March 7, 1912.  
 Lee Nixon (acting), September 8, 1911.

**District chief of police:**

Third class, 1.  
 Fourth class, 2.  
 Fifth class, 2.  
 Sixth class, 2.  
 Seventh class, 2.  
 Eighth class, 4.

**Board of medical examiners:**

Antonio Molina de St. Remy, August 4, 1911.  
 Pedro Gutierrez Igaravidez, February 10, 1912.  
 Geronimo Carreras, June 7, 1912.

**Board of commissioners of agriculture:**

Manuel Rodriguez Cabrera, September 1, 1911.

**Department of health, charities, and correction:**

Manuel Camufias (director), September 1, 1911.

**Board of trustees, University of Porto Rico:**

J. T. Crawley, November 28, 1911.

**Commissioners for Porto Rico in the United States:**

Leslie A. Pease, February 27, 1912.  
 Ramón Miranda, March 18, 1912.  
 Isaac R. Hitt, April 27, 1912.  
 Willis M. Spaulding, May 20, 1912.  
 Ralph S. Earle, June 27, 1912.

**Department of sanitation:**

W. F. Lippitt (director), March 29, 1912.

**Insular board of health:**

Dr. Francisco del Valle Atilas, April 1, 1912.  
 Dr. Tomas Vazquez, April 1, 1912.  
 Dr. Gustavo Muñoz Diaz, April 1, 1912.  
 Dr. José N. Carbonell, April 1, 1912.

**Insular board of health—Continued.**

Jorge Dominguez, April 1, 1912.

Manuel Travieso, April 1, 1912.

F. W. Dalrymple, April 20, 1912.

**Bank law commission:**

Frank M. Welty, April 27, 1912.

**Board of dental examiners:**

Lorenzo R. Noa, May 4, 1912.

**Porto Rico civil service commission:**

Manuel V. del Valle, May 4, 1912.

**San Juan Harbor board:**

Waldemar Lee, May 4, 1912.

M. R. Calderón, May 4, 1912.

Sosthenes Behn, May 4, 1912.

**Governor's staff:**

John W. Zimmerman, colonel, February 2, 1912.

Eduardo Negron, lieut. colonel, June 18, 1912.

**EXHIBIT C.****TABLE NO. 1.—Personnel of the insular police force of Porto Rico at the close of the fiscal year ending June 30, 1912, showing the number of horses and bicycles in each district.**

District.	District chiefs.	Sergeants.	Corporals.	Guardsmen.	Detectives.	Total.	Horses.	Bicycles.
Adjuntas.....	1			3		4	2	
Aguada.....			1	2		3		
Aguadilla.....	1		1	8		10	2	
Agua Buenas.....	2			2		4	1	
Alfonito.....	1			4		5	2	
Anasco.....	1		1	3		5		
Arecibo.....	1	1	2	18	1	23	2	2
Arroyo.....	1			7		8		2
Barceloneta.....			1	5		6	2	
Barranquitas.....	1			2		3	2	
Barros.....	1			3		4	2	
Bayamon.....	1	2	2	22	1	28	2	2
Cabo Rojo.....	1			6		7	1	
Caguas.....	1		1	16	1	19	3	
Camuy.....	1			6		7	4	
Carolina.....	1			4		5	1	
Cayey.....	1	1		10		12	4	
Ciales.....	1			2		3	2	
Cidra.....	1			3		4		
Coamo.....	1			4		5	2	
Comerio.....	1			3		4	2	
Corozal.....	1			2		3	2	
Dorado.....			2	4		6	2	
Fajardo.....	1		4	11		16	3	
Guayanilla.....	1			3		4		
Guayama.....	1		2	14	1	18	4	1
Gurabo.....	1			6		7	1	
Hatillo.....	1			4		5	3	
Humacao.....	1	1		16		18	6	
Isabela.....	1			3		4		
Juana Diaz.....	1		1	12		14	4	
Jayuya.....	1			2		3	2	
Juncos.....	1			6		7	2	
Lajas.....	1			6		7		
Lares.....	1		1	6		8	1	
Las Marias.....	1			3		4	2	
Loiza.....	1			4		5	2	
Manati.....	1		1	10		12	2	
Maricao.....	1			3		4	2	
Maunabo.....	1			4		5		
Mayaguez.....	1	1	2	24	2	30	5	3
Moca.....	1			3		4		
Morovis.....	1			2		3		
Naguabo.....	1			6		7	3	
Naranjito.....	1			2		3		
Patillas.....	1			5		6	2	
Penuelas.....	1			3		4	2	
Ponce.....	2	2	5	42	4	55	9	5
Quebradillas.....	1			2		3		
Rio Grande.....	1			6		7	1	
Rio Piedras.....	1			10		11	1	
Rincon.....	1			3		4	1	
Salinas Grande.....			1	3		4		
Salinas.....	1			7		8	3	
San German.....	1	1		9		11		
San Juan.....	4	3	8	112	10	137	18	2
San Lorenzo.....	1			4		5	2	
San Sebastian.....	1			4		5		
Santa Isabel.....	1			5		6	2	



TABLE NO. 1.—*Personnel of the insular police force of Porto Rico at the close of the fiscal year ending June 30, 1912, showing the number of horses and bicycles in each district—Continued.*

District.	District chiefs.	Sergeants.	Corporals.	Guardsmen.	Detectives.	Total.	Horses.	Bicycles.
Tos Alta.....	2			3		5	2	
Tos Baja.....	1			4		5	1	
Trujillo Alto.....		1		2		3	1	
Utua.....	1		1	8		10	2	
Vega Alta.....	1			2		3	2	
Vega Baja.....		1		6		7	2	
Vieques.....	1	1	1	11		14	10	
Yabucoa.....	1			4		5		
Yauco.....	1		2	12		17	3	
Total.....	68	15	40	556	20	699	146	17

TABLE NO. 2.—*Statement showing the number of arrests made, convictions, and acquittals during the fiscal year ending June 30, 1912, for the following offenses and crimes:*

Offenses.	Acquittals.	Sentenced.	Total arrested.
Murder and homicide.....	10	53	63
Attempt of murder.....	6	32	38
Suicide.....		25	25
Attempt of suicide.....		24	24
Assault and battery.....	448	2,256	2,704
Robbery.....	1	2	3
Violation.....	4	11	15
Seduction.....	21	31	52
Abandonment and neglect of children.....	5	14	19
Bigamy.....	1		1
Incest.....	1		1
Crime against nature.....	4		4
Gambling.....	1,002	7,794	8,896
Arson.....	2	2	4
Burglary.....	23	97	120
Falsification of documents.....		8	8
Petit larceny.....	4	51	55
Grand larceny.....	234	1,211	1,445
Cattle stealing.....	1	16	17
Abuse of confidence.....	13	117	130
Smuggling.....		6	6
Extortion.....		7	7
False representation.....	24	157	181
Fraudulent destruction of insured property.....	1		1
False weights and measures.....	7	39	46
Malicious injury.....	38	119	157
Carrying concealed weapons.....	210	2,934	3,144
Cruelty to animals.....	358	1,928	2,286
Disorderly conduct.....	2,589	10,536	13,125
Violation of municipal ordinances.....	1,414	11,356	12,770
Violation of sanitary laws.....	517	8,344	8,861
Violation of road regulations.....	127	2,056	2,183
Crimes committed by or against the executive power.....	2	21	23
Prostitution.....	8	82	90
Requisitioned.....	3	176	179
Fugitives from justice.....	1	37	38
Infraction automobile regulations.....	16	157	173
Sale of lottery tickets.....	3	11	14
Infraction Sec. 289 of penal code.....		5	5
Infraction Sec. 298 of penal code.....		1	1
Dishonest exposures.....	16	121	137
Infraction Sec. 300 of penal code.....	10	22	32
Against the public health and security.....	25	54	79
Infraction Sec. 553 of penal code.....	24	255	279
Injury and slander.....	5	14	19
Against the public justice.....	39	84	123
Infraction advertisement law.....	1	13	14
Internal revenue.....	1	27	28
Exploitation of minors.....	9	28	37
Law on docks and harbors.....		20	20
Against morality.....	1		1
Excise tax law.....		3	3
Contempt of court.....	2	55	57
Adultery.....	30	35	65

TABLE NO. 2.—Statement showing the number of arrests made, convictions, and acquittals during the fiscal year ending June 30, 1912, for the following offenses and crimes—Con.

Offenses.	Acquittals.	Sentenced.	Total arrested.
Dangerous insanity.....		11	11
Mutilation.....		9	9
Profanation of United States flag.....		7	7
Illegal practice of medicine.....	3		3
Label.....	1		1
Violation postal laws.....		1	1
Corruption of minors.....	3	5	8
Violation sec. 347 of penal code.....	1		1
Violation of sec. 371 of penal code.....	1		1
Violation of sec. 370 of penal code.....		4	4
Violation of sec. 213 of penal code.....		2	2
Caution.....		1	1
Warrant of arrest.....		3	3
Infraction sec. 364 of penal code.....		1	1
Perjury.....		1	1
Infraction sec. 137 of penal code.....	1	5	6
Pharmacy law.....		9	9
Fraud to treasurer of Porto Rico.....		2	2
Violation to sepultures.....		9	13
Infraction sec. 444 of penal code.....	4		4
Conspiracy.....		4	4
Violation sec. 292 of penal code.....		3	3
Bird law.....	3		3
Cruelty to animals.....		9	9
Violation to labor law.....		5	5
Violation sec. 303 penal code.....		2	2
Violation school law.....	1		1
Falsification.....	2	4	6
Infraction sec. 306 of penal code.....	2		2
Infraction sec. 438 of penal code.....		1	1
Duels.....		2	2
Infraction sec. 139 of penal code.....		4	4
Total.....	7,386	45,581	52,967

TABLE NO. 3.—Statistics showing number of felonies committed by both sexes during the fiscal year ending June 30, 1912.

Crimes.	Sentenced.		Acquitted.		Total arrested.	
	Men.	Women.	Men.	Women.	Men.	Women.
Attempt of murder.....	30	1	9		39	1
Cattle stealing.....	7				7	
Burglary.....	75		16		91	
Violations.....	13		6		19	
Arson.....	3		7		10	
Grand larceny.....	51		4		55	
Destruction of insured property.....			4		4	
Against the executive power.....	2		1		3	
Murder.....	61	2	8		69	2
Smuggling.....	4		3		7	
Requisitioned.....	3		1		4	
Fugitives from justice.....	3				3	
Seductions.....	15		19		34	
False representation.....	3				3	
Suicides (25 men, 10 women).....						
Public treasury.....	1				1	
Mutilation.....	6				6	
Falsifications.....	7		3		10	
Assault to commit homicide.....	1				1	
Incest.....	1		1		2	
Infraction sec. 553 penal code.....	1		3		4	
Infraction sec. 444 penal code.....	1				1	
Against the public justice.....	3				3	
Against the public health and security.....	1		1		2	
Bigamy.....	1				1	
Extortion.....	1				1	
Total (not including suicide).....	274	3	86		360	3

## EXHIBIT D.

## LIST OF ORDINANCES PASSED BY THE EXECUTIVE COUNCIL AND APPROVED BY THE GOVERNOR OF PORTO RICO.

An ordinance supplementing and amending an ordinance entitled "An ordinance granting to Sosthenes Behn the right to construct, maintain, and operate a system of long-distance telephone lines between the towns of Carolina and Hormigueros and other intervening towns, and cities, together with local telephone systems in certain of said towns, and local stations at other points," and authorizing the Porto Rico General Telephone Co. to construct, maintain, and operate telephone systems in San Juan, Mayaguez, and the eastern end of the island, approved August 17, 1911.

An ordinance granting to Sucesores de C. & J. Fantauzzi authority to construct, maintain, and operate a pier on the harbor shore of Arroyo, approved September 12, 1911.

An ordinance revoking an ordinance entitled "An ordinance granting to the Compañía de los Ferrocarriles de Puerto Rico the right to maintain and operate a wharf already constructed on the harbor shore of Guayanilla, and to make alterations therein and build an extension thereto," approved September 12, 1911.

An ordinance repealing an ordinance entitled "An ordinance granting a revocable permit to William C. Lockwood to extract and market carbonate of lime from a deposit situated near Guánica on land belonging to The People of Porto Rico," approved September 12, 1911.

An ordinance granting a revocable permit to José Guerrero to take and use for industrial purposes 60 liters of water per second from the Morovis River, approved September 12, 1911.

An ordinance further amending an ordinance entitled "An ordinance granting to Gardner Rogers the right to construct, maintain, and operate a pier and other structures in the harbor of Ponce, Porto Rico," approved July 15, 1911.

An ordinance granting a revocable permit to the Porto Rico Railway, Light & Power Co. to construct and maintain a sidetrack in road No. 1, near Egozcue Street in Sancti Spiritus, approved September 12, 1911.

An ordinance repealing an ordinance entitled "An ordinance granting to Rafael Fabian, Antonio Roig, and J. Carlos McCormick the right to construct, maintain, and operate a railway between Caguas and the Playa of Humacao, with a branch to Naguabo," approved September 12, 1911.

An ordinance amending an ordinance entitled "An ordinance amending an ordinance entitled 'An ordinance granting to the Compagnie des Sucreries de Porto Rico the right to build and operate a line of railway between the towns of Ponce and Coamo in the Island of Porto Rico,' adopted June 4, 1906," approved August 21, 1911.

An ordinance granting to the Providencia Central Co. authority to construct, maintain, and operate a pier on the harbor shore of Patillas, approved September 12, 1911.

An ordinance granting a revocable permit to Sucesores de A. Monroig to construct a steel bridge over the Bayamon River, approved September 12, 1911.

An ordinance granting a revocable permit to Carmen S. de Javierre and Manuela S. de Gil to take and use for irrigation purposes 34 liters of water per second from the Estero River, approved September 12, 1911.

An ordinance granting a revocable permit to Juan Benet Valdés to construct, maintain, and operate a private telephone line, approved September 12, 1911.

An ordinance granting a revocable permit to Manuel Mayoral to take and use for industrial purposes 26 liters of water per second from the Inabon River, approved September 12, 1911.

An ordinance further amending an ordinance entitled "An ordinance granting to Gardner Rogers the right to construct, maintain, and operate a pier and other structures in the harbor of Ponce, P. R.," approved September 12, 1911.

An ordinance granting a revocable permit to Alfredo Ramírez y Rosell to take and use for irrigation purposes 15 liters of water per second from the Estero River, approved September 30, 1911.

An ordinance granting a revocable permit to O. F. Bravo to take and use for irrigation purposes 27.3 liters of water per second from the Guanajibo River, approved September 30, 1911.

An ordinance granting to the Graham & Granger Fruit Co. authority to construct, maintain, and operate a pier on the shore of San Juan harbor at Pueblo Viejo, approved September 30, 1911.

An ordinance granting a revocable permit to Ortuero E. Díaz to maintain and operate a ferry across the Loiza River, approved September 30, 1911.

An ordinance repealing an ordinance entitled "An ordinance granting to Carlos de Erenio, his heirs, successors, and assigns, the right to take and use 4 liters of water per second, for industrial purposes, from the Quebrada del Medio, in the barrio of Barahona, municipal district of Morovis," approved September 30, 1911.

An ordinance granting a revocable permit to Ramón Valdez to take and use for industrial purposes 51 liters of water per second from the Añasco River, approved October 2, 1911.

An ordinance granting a revocable permit to Sucesores de Bianchi to take and use for irrigation purposes 156.9 liters of water per second from the Añasco River, approved October 6, 1911.

An ordinance granting a revocable permit to J. & F. Bianchi to take and use for irrigation purposes 150.6 liters of water per second from the Añasco River, approved October 6, 1911.

An ordinance granting a revocable permit to William Allan to construct a wharf on the bank of the Bayamon River, approved October 17, 1911.

An ordinance further amending an ordinance entitled "An ordinance granting to Gardner Rogers the right to construct, maintain, and operate a pier and other structures in the harbor of Ponce, P. R.," approved November 22, 1911.

An ordinance amending an ordinance entitled "An ordinance supplementing and amending an ordinance entitled 'An ordinance granting to Sosthenes Behn the right to construct, maintain, and operate a system of long-distance telephone lines between the towns of Carolina and Hormigueros and other intervening towns and cities, together with local telephone systems in certain of said towns and local stations at other points,' and authorizing the Porto Rico General Telephone Co. to construct, maintain, and operate telephone systems in San Juan, Mayaguez, and the eastern end of the island," approved November 22, 1911.

An ordinance granting to the municipality of Ponce, P. R., authority to construct, maintain, and operate a pier on the shore of Ponce Harbor, at Penoncillo Point, approved December 7, 1911.

An ordinance granting a revocable permit to Camuy Sugar Co. to take and use for industrial purposes 190 liters of water per second from the Camuy River, approved December 19, 1911.

An ordinance granting a revocable permit to Plata Sugar Co. to take and use for industrial purposes 190 liters of water per second from the Culebrinas River, approved December 19, 1911.

An ordinance granting to Látimer & Fernández authority to construct, maintain, and operate a pier on the harbor shore of San Juan, approved December 19, 1911.

An ordinance amending an ordinance entitled "An ordinance supplementing and amending an ordinance entitled 'An ordinance granting to Sosthenes Behn the right to construct, maintain, and operate a system of long-distance telephone lines between the towns of Carolina and Hormigueros and other intervening towns and cities, together with local telephone systems in certain of said towns and local stations at other points,' and authorizing the Porto Rico General Telephone Co. to construct, maintain, and operate telephone systems in San Juan, Mayaguez, and the eastern end of the island," approved December 28, 1911.

An ordinance granting a revocable permit to Compañía Azucarera Central Machete to construct a wharf and storage warehouse in Arroyo, approved January 22, 1912.

An ordinance granting to Thomas D. Mott, jr., authority to construct, maintain, and operate a system for the manufacture, distribution, and sale of gas, approved January 22, 1912.

An ordinance granting a revocable permit to Utuado Sugar Co. to take and use for industrial purposes 126 liters of water per second from the Grande de Arecibo River, approved January 22, 1912.

An ordinance granting to the municipality of Yauco the right to take 30 liters of water per second from the Duey River, approved February 14, 1912.

An ordinance granting to the municipality of Carolina the right to take 20 liters of water per second from the Grande de Loiza River, approved February 22, 1912.

An ordinance granting a revocable permit to Loiza Sugar Co. to construct a steel bridge over the Loiza River, approved February 26, 1912.

An ordinance supplementing an ordinance entitled "An ordinance granting to P. J. Rosaly the right to construct, maintain, and operate a system of long-distance telephone lines between the city of Ponce and certain towns, together with local telephone systems in such towns," and authorizing the South Porto Rico Telephone Co. to extend its telephone service to Cabo Rojo, approved April 5, 1912.

An ordinance granting a revocable permit to Fernando Alvarez to construct, maintain, and operate a pier on the harbor shore of Catano, approved April 8, 1912.

An ordinance granting a revocable permit to la Compañía de los Ferrocarriles de Puerto Rico to construct and temporarily maintain a railway track in Comercio Street, San Juan, approved April 8, 1912.

An ordinance granting to the Robbins-Ripley Co. authority to construct, maintain, and operate a pier on the harbor shore of San Juan, approved April 9, 1912.

An ordinance granting to Harold E. Gates and John D. Gillies authority to construct, maintain, and operate a pier on the harbor shore of Catano, approved April 24, 1912.

An ordinance authorizing José Guerrero to construct, maintain, and operate an electric power plant in the municipality of Barceloneta, approved April 24, 1912.

An ordinance granting a revocable permit to Quintín Ramírez to take and use for irrigation purposes 41.3 liters of water per second from the Estero River, approved May 1, 1912.

## EXHIBIT E.

## STATISTICAL DATA CONCERNING CIVIL SERVICE OPERATIONS.

TABLE A.—Results of examinations held.

Examination.	Number of applicants.	Applicants cancelled.	Failed to report.	Pending.	Number examined.	Passed.	Not passed.		Appointments.
							Failed.	Examinations cancelled.	
Assessor and internal-revenue agent <sup>1</sup> .....	13	5		1	8	7	1		
Assistant engineer.....	2				1	1			7
Assistant overseer.....	2				2	2			1
Bookkeeper <sup>1</sup> .....	12	2			10	4	10		1
Chairman.....	6			1	4	4			1
Carpenter.....	2				2	2			
Civil engineer.....	2				2	2			
Clerk, first grade <sup>1</sup> .....	86	1	8		76	64	21	1	14
Clerk, first grade <sup>1</sup> .....	1				1	1			
Clerk, fiscal.....	2				1	1			
Clerk, registry of property <sup>1</sup> .....	23	9			24	9	14		1
Clerk, second grade <sup>1</sup> .....	161	8	14		129	66	61	1	5
Clerk, second grade <sup>1</sup> .....	1				1	1			
Clerk, third grade <sup>1</sup> .....	96	3	10		83	67	14	1	12
Clerk, third grade <sup>1</sup> .....	3				3	2	1		15
Computer <sup>1</sup> .....	1				1	1			
Cooking teacher, girls' charity school.....	1				1	1			1
Draftsman <sup>1</sup> .....	1				1	1			1
Engine driver <sup>1</sup> .....	16	2		9	6	6	1		2
Examiner of accounts, office of the auditor <sup>1</sup> .....	4				4	2	2		2
Farmer.....	4				4	2	2		
Janitor.....	3				3	3			1
Janitor.....	3				3	3			
Levelman.....	13	1		8	4	4			2
Livestock.....	2			2	1	1			1
Mason.....	3				3	3			
Master, boys' charity school <sup>1</sup> .....	1				1	1			1
Overseer.....	6				6	4			
Plumbing inspector <sup>1</sup> .....	1	1			19	16			14
Police captain <sup>1</sup> .....	46	12		2	6	6			1
Freelance.....	12	4		6	28	23	16		23
Prison guard <sup>1</sup> .....	111	63	4	8	12	12			2
Road foreman.....	21	1			64	17	37		11
Stenographer <sup>1</sup> .....	54				54	54			
Stenographer <sup>1</sup> .....	1				1	1			

<sup>1</sup> Written examination.<sup>2</sup> Noncompetitive written examination for promotion.

## STATISTICAL DATA CONCERNING CIVIL SERVICE OPERATIONS—Continued.

TABLE A.—Results of examinations held—Continued.

Examination.	Number of applicants.	Applications canceled.	Failed to report.	Pending.	Number examined.	Passed.	Not passed.		Appointments.
							Failed.	Exam- nations canceled.	
Superintendent of public works <sup>1</sup> .....	3	.....	.....	.....	3	1	2	.....	1
Superintendent of reform school <sup>1</sup> .....	3	.....	.....	.....	3	1	2	.....	1
Superintendent of prisons <sup>1</sup> .....	2	.....	.....	.....	2	2	.....	.....	1
Survivors <sup>1</sup> .....	6	.....	.....	.....	2	.....	.....	.....	1
Teachers, girls' charity school <sup>1</sup> .....	5	3	.....	1	4	1	1	.....	1
Teachers, girls' charity school <sup>1</sup> .....	34	1	.....	.....	31	3	28	.....	6
Telephone operators <sup>1</sup> .....	2	.....	.....	2	2	2	.....	.....	1
Telephone operators <sup>1</sup> .....	10	.....	.....	.....	10	1	.....	.....	.....
Translator, general <sup>1</sup> .....	9	.....	.....	.....	7	2	5	.....	1
Translator, department of justice <sup>1</sup> .....	9	2	.....	.....	7	2	5	.....	3
Traveling inspector <sup>1</sup> .....	75	1	.....	.....	8	5	3	.....	15
Typewriter <sup>1</sup> .....	2	.....	.....	.....	74	31	38	4	.....
Visiting physician.....	.....	.....	.....	1	1	1	.....	.....	.....
Total.....	570	122	38	61	651	377	265	9	150

<sup>1</sup> Written examination.

TABLE A1.—*Examinations held for United States Civil Service.*

Examination.	Passed.	Failed.	Passed.
<b>For original appointment to positions in Porto Rico:</b>			<i>Per cent.</i>
<b>Educational—</b>			
First grade English: Customs service.....	3	16	15.79
Second grade English: Customs inspector.....	5	12	29.41
Post Office clerk:			
English.....	2	11	15.38
Spanish.....	19	4	82.61
Post Office carrier:			
English.....		3	.....
Spanish.....	4	9	30.75
Post Office clerk-carrier: English.....	3	2	60.00
Sub-clerical:			
English.....	3	3	50.00
Spanish.....	8	1	88.89
<b>Total.....</b>	<b>47</b>	<b>61</b>	<b>43.52</b>
<b>Noneducational—</b>			
Coxswain.....	1		100.00
Trainmaster, Quartermaster's Department.....	1		100.00
<b>Total.....</b>	<b>2</b>		<b>100.00</b>
<b>Grand total.....</b>	<b>49</b>	<b>61</b>	<b>44.55</b>

	Number of competitors.
<b>For promotion to positions in Porto Rico:<sup>1</sup></b>	
First grade, customs service.....	2
First grade, post office service.....	1
Stenographer and typewriter, immigration service.....	1
<b>Total.....</b>	<b>4</b>
<b>For original appointment to positions in the United States:<sup>1</sup></b>	
Assistant in farm cost accounting.....	1
Customs agent.....	1
Clerk.....	12
Stenographer and typewriter.....	1
Railway mail clerk (Spanish).....	1
Electrical assistant.....	1
<b>Total.....</b>	<b>17</b>

<sup>1</sup> The results of these examinations are not communicated to this commission.TABLE B.—*Changes in the Porto Rican Civil Service during the fiscal year ending June 30, 1912.*

[Character of change: C., classified service; U., unclassified service.]

	Governor.		Police.		Secretary.		Justice.		Treasury.		Auditor.	
	C.	U.	C.	U.	C.	U.	C.	U.	C.	U.	C.	U.
Probational and original appointments.....	1		2	131	6		20	83	21	3	8	
Appointments from United States register.....					2							
Transfers from United States Civil Service.....					4		1					
Reinstatements.....					13		1		4			
Transfers.....	4		2		1		3		2		8	1
Promotions.....			4	29	56		30	2	104		25	
Reductions.....					16		2		14		1	
Separations.....	1	2	3	132	10		13	40	28	5	5	2
Temporary employment:												
Appointments.....			6	1	86	5	35	53	45	4	27	
Separations.....			4		64	8	14	48	24	1	9	
<b>Total.....</b>	<b>6</b>	<b>2</b>	<b>21</b>	<b>293</b>	<b>258</b>	<b>13</b>	<b>119</b>	<b>226</b>	<b>242</b>	<b>13</b>	<b>83</b>	<b>3</b>



TABLE B.—*Changes in the Porto Rican Civil Service during the fiscal year ending June 30, 1912—Continued.*

	Interior.		Education.		Labor cor- rections and charities.		Civil serv- ice com- mission.		Sanitation.		Total.	
	C.	U.	C.	U.	C.	U.	C.	U.	C.	U.	C.	U.
Probational and original appointments.....	80	210	6	409	33	66	3	1	394	68	574	971
Appointments from United States register.....											3	
Transfers from United States Civil Service.....	2								4		11	
Reinstatements.....	29	1	2		4				30		83	1
Transfers.....	3		1		2				36	7	64	8
Promotions.....	141	75	20	885	47	24	3		90	14	520	539
Reductions.....	9			45	2				94	2	136	47
Separations.....	121	134	6	280	36	52	2	2	192	35	417	684
Temporary employment:												
Appointments.....	30	2	1		37		2	1	103	2	362	68
Separations.....	24	2	1		9		1	1	32		182	60
Total.....	439	424	37	1,119	160	142	11	5	977	128	2,353	2,366

TABLE C.—*Distribution of positions and salaries in classified and unclassified service based on appropriation, fiscal year 1912-13.*

Branch of the service.	Classified service.		Unclassified service.	
	Number of positions.	Salaries.	Number of positions.	Salaries.
Executive council.....			14	\$30,740
House of delegates.....			43	21,240
Governor.....	2	960	3	11,880
Police.....	11	11,160	751	\$79,750
Secretary.....	91	78,340	2	7,500
Attorney general.....	18	21,920	4	12,730
Treasurer.....	180	186,880	6	12,205
Auditor.....	40	55,790	3	9,800
Interior:				
Appropriation.....	256	206,680	79	16,240
Irrigation service.....			145	187,940
Education.....	65	79,220	1,889	787,876
University of Porto Rico.....			63	65,552
Insular library.....			4	8,720
Labor, charities and correction.....	228	136,176	108	22,462
Civil service commission.....	5	4,840	3	5,400
Sanitation.....	272	266,180	28	16,718
Judiciary.....	33	29,620	178	246,680
Registrars of property.....	37	22,720	10	24,600
Miscellaneous.....	7		7	2,826
Total.....	1,238	1,071,266	3,338	1,845,762

TABLE D.—Table showing positions and salaries of native and nonnative officials and employees.

Department or office.	Natives.			Nonnatives.			Total.		
	Total salaries.	Number employed.	Average salary.	Total salaries.	Number employed.	Average salary.	Total salaries.	Number employed.	Average salary.
Executive Council .....	\$20,040	9	\$2,227	\$10,700	5	\$2,140	\$30,740	14	\$2,196
House of Delegates .....	21,240	43	471				21,240	43	471
Governor .....	3,110	3	1,037	9,600	2	4,800	12,710	5	2,542
Police .....	352,710	758	505	8,200	4	2,050	360,910	762	513
Secretary .....	36,490	65	561	46,350	28	1,655	82,840	93	823
Attorney general .....	18,470	15	1,231	17,200	7	2,458	35,670	22	1,621
Treasury .....	129,105	144	897	72,650	42	1,730	201,755	186	1,085
Auditor .....	38,090	31	1,229	37,200	12	2,267	75,290	43	1,519
Interior .....	244,280	361	677	165,580	119	1,391	409,860	480	854
Education .....	624,345	1,703	367	212,745	251	848	837,090	1,954	428
University .....	13,687	23	596	54,855	40	1,371	68,542	63	1,088
Insular library .....	2,520	3	840	1,200	1	1,200	3,720	4	930
Labor, charities, and correction .....	150,268	235	475	1,400	1	1,400	151,668	236	476
Civil service commission .....	5,440	6	907	4,800	2	2,400	10,240	8	1,280
Sanitation .....	221,078	282	784	31,820	18	1,768	252,898	300	843
Judiciary .....	251,780	201	1,253	24,700	8	3,088	276,480	209	1,320
Registries of property .....	49,620	47	1,054				49,620	47	1,054
Miscellaneous .....	3,835	7	545				3,835	7	545
Grand total .....	2,228,018	4,036	552	680,000	540	1,276	2,917,018	4,576	638

## EXHIBIT F.

## REPORT OF THE DIRECTOR OF SANITATION.

OFFICE OF THE DIRECTOR,  
San Juan (September 1, 1912).

SIR: I have the honor herewith to transmit my annual report for the fiscal year ending June 30, 1912.

Before entering upon an account of the work accomplished by the service of sanitation during the last year it is necessary to consider the conditions under which this work was begun and has been carried on.

The act approved March 9, 1911, to organize the service of sanitation, was the result of a compromise between the recognized necessity of the centralization of the service and a desire to retain political control of the elements composing this service. Its provisions were such as to leave in doubt the supreme executive authority and to confuse the administrative powers to such an extent that the hands of the director were tied in practically all his functions, if the opinion of the board was accepted.

The only general sanitary regulations that had been in force up to June 30, 1911, were certain regulations prepared by the director of the department of health, charities, and correction, and approved by the executive council in January, 1911.

But according to the opinion of the attorney general all of these regulations became null and void by operation of law when the act went into effect. As this board of health in the nine months of its existence prepared but one regulation, that for the extermination of mosquitoes, the work of the service of sanitation had to be based upon general principles of sanitation and the general law governing nuisances, contained in section 752 of the Revised Statutes of Porto Rico. In spite of the desire on the part of the judicial authorities to assist in every way possible in the realization of the sanitation of the island, they were unable to enforce the regulations, which in many cases had no force and effect.

I was designated to take charge of the service of sanitation during the last week of June, 1911. Up to this time the board of health had not been appointed. No division of the island into zones had been made, as required by law, and no plans of any kind had been drawn up for the organization of the service.

There was nothing to serve as a guide in this organization, because in the majority of the towns of the island no effort had been made up to that time to maintain any efficient service of sanitation. There was no one available who was cognizant of the conditions existing, nor even of the physical conditions of the various towns. Because of the shortness of the period it was not possible to secure the personnel, material and

supplies that were necessary to begin the work on July 1, 1911, and for that reason a telegram was sent out by the governor requesting the municipal authorities to continue the work temporarily until the organization of the service of sanitation could be completed.

This was done by all the municipalities, and the thanks of this service are due to them for the manner in which they complied with this request.

During the short period remaining before the 1st of July a provisional division of the island into zones was made, and temporary appointments were made to the positions created. This division was approved by the board of health, except in a few minor particulars, and was the one that continued in force up to the 31st of March, when the revised law went into effect.

In the appointment of health officers selections were made of the men who were believed to be most suitable of all those on the island, and assignments were made to the zones according to the residence of each individual, as far as practicable.

This resulted in reappointment to these positions, in many cases, of the men who had occupied them under the municipal government. It was soon found that in the division of zones many towns of importance that were not headquarters of zones were left without any health officer, and recognizing the necessity advantage was taken of the clause of the law authorizing the appointment of inspectors to appoint to these larger towns first-class inspectors, all of which were positions with salaries of \$1,200 per annum, leaving the division of second-class inspectors at \$720 per annum, to be composed of persons not physicians, to fill the positions as assistants at the towns where the health officer was situated.

There were no data of any kind upon which to base the organization of the service of street cleaning and garbage removal, and it was necessary to trust largely to the judgment of the health officer of each locality in this matter. The municipal authorities, knowing that the work of sanitation was to pass to the insular service, had in the majority of instances practically abandoned all such work.

These circumstances combined to increase the expense of the service in the beginning, but instructions were given to the medical inspectors to devote their attention to cutting down the expenses as well as to securing an efficient service.

The health officers as a rule had had no special training in sanitary work, and, while zealous, capable physicians, were not familiar with the laws, nor even with general sanitary requirements. There was no definition of the particular division of duties between the municipalities and the service of sanitation.

For instance, in slaughterhouses the maintenance of the buildings and the collection of fees for their use belong to the municipalities, but the inspection of the meat to determine its fitness for human consumption was the duty of the health officer, and many of the municipalities tried to require of the service of sanitation the removal of the waste from the killing of the animals.

The cleaning of streets and public parks and the removal of all conditions liable to produce disease properly belong to the service of sanitation, but the removal from the streets of short grass, which does not injure the public health, has been a source of constant friction between the municipalities and the service of sanitation. The municipalities, expecting that all such work would be carried out by the service of sanitation, had made no provision therefor in their annual budgets. No provision had been made for the class of buildings which were considered necessary by the service of sanitation, and in the absence of funds for the purpose the hands of the health officers were tied for a period of nearly 12 months.

These insanitary conditions in the public buildings and the lack of funds placed health officers who were zealous in the performance of their duties and anxious to secure proper sanitation in their towns, in the position of having to acknowledge themselves incapable, or else of bringing pressure to bear by every possible means upon the municipal authorities to compel them to comply with their orders. This has given rise to a great deal of friction between the health officers and the municipal authorities, and has required, and still requires, the constant personal intervention of the director.

Upon receipt of the first sanitary reports of the different towns attention was drawn to the lack of proper sources of water supply and to the almost absolute lack of a proper system of sewerage, and the personal efforts of the director have been very largely directed toward securing from the municipal authorities the appropriation of the necessary funds to construct these two indispensable requisites. Plans have been drawn and loans requested, or studies have been begun, by the towns of Cayey, Caguas, Ponce, Santa Isabel, Guayama, Humacao, Fajardo, Penuelas, Yauco, Mayaguez, Aguadilla, Corozal, Aibonito, Barranquitas, Barros, Camuy, Hatillo, Bayamon, and Carolina; and the completion of these works is delayed only by the lack of proper authorization for the issuing of bonds. It is hoped that in the coming session of the

legislature it will be possible to secure the necessary amendment of the law to permit these things to be done, as without it there will be no possibility of materially improving conditions at present existing.

Aside from the direct effect in the diminution of typhoid fever and other diseases due to the contamination of water supplies, the introduction of water and of proper systems of sewerage has a direct effect in diminishing the number of mosquitoes, which are recognized to-day as frequent causes of diseases such as malaria, dengue, yellow fever, etc.

In August, 1911, Maj. Robert E. Noble reported for duty in the organization of the special service of the extermination of mosquitoes, he having been designated for that purpose by the Secretary of War. Because of the lack of any regulations bearing upon this subject he was unable to begin efficient work until the 18th of September, but in the six months of his stay on the island his work was so efficient as to render the city of San Juan mosquito free, and to diminish to a very great extent the number of mosquitoes in Santurce, the difference being that San Juan is provided with a proper system of water and sewers in all of its buildings, whereas Santurce is without sewers. Great credit is due to Maj. Noble for this work. The complete extermination of mosquitoes will not be possible so long as the swamps around the city continue in their present state. If the plans for dredging the harbor are carried out the mud recovered should be utilized in filling up these marshes, under proper precautions, and in this way the city may be rid of the plague of mosquitoes, and the land so acquired may be used for the extension of the city. The work of extermination of mosquitoes, which was organized by Maj. Noble, has been kept up without interruption in San Juan and in Ponce, so that in both cities mosquitoes have ceased to be an annoyance. In other parts of the island, from lack of means and from lack of experience on the part of the health officers, it has not been possible to obtain such good results.

Mention should be made of the condition under which the insane are maintained in the city jails. These unfortunate creatures are in many cases kept in the jails under conditions which are disgraceful, not only to the municipalities, but to the island. It is understood that the insular insane asylum is overcrowded. The municipalities are unable to maintain proper asylums for their care. This is not only because of a lack of funds, but because of lack of personnel capable and instructed in the proper care and treatment of the insane. It is urgently recommended that steps be taken to enlarge the present accommodations of the insane asylum in San Juan so as to permit of the admission of about 150 more patients.

During the past year, aside from the epidemic of the plague, the only disease which has necessitated serious consideration is typhoid fever. In July, 1911, at the beginning of the work of this service, there existed in San Juan over 40 cases. At the end of the year the usual number was from 5 to 10. It is believed that this diminution is due to the extreme care used in the disinfection of the excreta, and to the additional cleanliness of the latrines, brought about by the constant inspection of the bureau of disinfection organized under the division of transmissible diseases.

Epidemics of typhoid fever occurred in the barrio of Rio Arriba of Manati, necessitating the establishment there of a hospital under this service; and in Yauco and Corozal, and at the end of the year at Peñuelas, where the disease reached serious proportions only during the month of July, 1912.

Immediately upon the occurrence of a case of typhoid the attention of the health officer is called to the necessity of using proper measures for the prevention of its spread, and he is advised as to what those precautions should consist of. If the number of cases become sufficient to justify it the director and the chief of the bureau of transmissible diseases visit the town for the purpose of making a personal inspection and advising as to the steps to be taken. The chief of this bureau has been very zealous in following up any cases of suspicious disease, so that many cases, and even some epidemics, have been found and reported that formerly would not have been known.

The number of deaths from tuberculosis is appalling. In many cases this disease causes over half the deaths that occur in a municipality. This is probably due in a large measure to the faulty housing conditions. In San Juan particularly it was found that in many cases the cubic air space was less than 100 feet per person, and in some cases even this space was exceedingly damp, the houses were dirty, and not provided with any sanitary fixtures.

In the absence of any regulations governing tenement houses efforts were made by the health officers to secure improvement in these housing conditions on general sanitary principles, and a great deal was accomplished, especially in towns away from San Juan. In San Juan the Liga de Propietarios, which owns the greater part of the tenement houses, persistently declined to obey orders given them and maintained the deplorable conditions that existed. The health officer in San Juan makes

the statement that in nearly every instance the houses in which cases of plague have occurred were condemned by him as unfit for habitation previous to the epidemic of plague, and an effort made to have the conditions corrected.

Upon the approval of the act of March 8, 1911, to organize the service of sanitation, it was decided by the attorney general that the bureau of tropical and transmissible diseases became merged in the new service of sanitation. The chief of that bureau, Dr. Pedro Gutierrez, resigned. It was not known who was to have charge of the service of sanitation, and no preparations were made for the continuance of the anemia work. As soon as possible, after the reorganization of the service, early in August, 1911, a circular order was issued establishing the anemia dispensaries in the health offices of all towns which were stations of medical officers. Unfortunately, however, the supplies on hand of thymol and sulphate of magnesia, two absolutely necessary remedies, had been allowed to decline to such an extent that nothing could be done until fresh supplies were obtained. Requisition was made through the bureau of supplies, printing and transportation, but the supplies were not received in quantity until December. For this reason no general work could be done until that time. At the present time stations are maintained wherever there is a health officer, and in addition two have been established in the interior of the island; one at Rio Prieto, about 15 miles from Yauco in the coffee section at a fixed point; the other, of which Dr. Benjamin Stephenson has charge has headquarters at Jayuya, with six stations visited by him once a week, in a circle with a radius of 8 or 10 kilometers. Very good work is being done by these two last stations, and it is believed that great good can be done by the establishment of 15 or 20 stations of the same nature in the interior of the island. They reach the country people who would not be willing to go into the towns.

In this connection a letter was received from Mr. A. Olivieri, in which he reports the results of the use by him on his own plantation of shoes for his workmen. This was on his own initiative, and he says that it has produced results so favorable as to more than justify the expenditure of the money necessary completely to equip the laborers on his plantation with shoes. Anemia is not only of importance from a sanitary point of view, but even more so from an economic standpoint, because the labor of the island will in a few years, be insufficient for the necessities, unless steps are taken to restore the native of the interior to the proper conditions of health.

At these interior stations it has not been possible to make the same scientific study of the cases as had been done heretofore, and it is not believed to be necessary. The principal object is the treatment of the sick, and not the study of the disease. I have the honor to submit thereto attached reports as to the number of cases treated and all the data obtainable in connection therewith.

In October, 1911, the district court in Ponce decided that the United States pure food and drugs act was applicable to Porto Rico, and annulled all legislation on the subject by the insular government. This had the effect of completely tying the hands of this service until the director was appointed the representative in Porto Rico of the Secretary of Agriculture and the chief of the chemical laboratory as the representative of the chief of the United States Government laboratory connected with the Department of Agriculture. Steps were immediately taken, upon receiving this appointment, to put the law into effect, but owing to the differences between the Federal law and that enacted by the local legislature, it was necessary to grant a certain length of time to the merchants to familiarize themselves with the conditions, and to dispose of such articles as did not comply with the Federal legislation.

The interpretation and enforcement of this law was necessarily left largely in the hands of the chief of the chemical laboratory, and upon the outbreak of the epidemic of bubonic plague they were intrusted entirely to him, his work being done through the inspectors of foods and drugs belonging to this service, as well as through the health officers and the other employees.

The chemical laboratory during the year has made studies of the composition of the wastes from the coffee plantations and from the sugar centrals, in the endeavor to find some practical means of purifying these wastes so as to avoid the contamination of the rivers, which up to the present time has been constant, wherever there is a sugar central or a coffee plantation in the interior of the island. These examinations have not been completed, but it is expected to finish the study in time to prepare proper regulations governing the matter before the beginning of the next year's cane grinding season.

In the month of April orders were given to a board consisting of the chief of the chemical laboratory, the chief of the bacteriological laboratory, and the sanitary engineer, to study the water supply of San Juan with a view to recommending the steps necessary for its protection as well as for the increase in the supply. This report had not been finished at the close of the year, owing to the epidemic of plague.

No material change has been noted in the percentage of deaths. This would not be expected, as the service has been in existence such a short time and has had no sanitary laws under which to work. It is worthy of note that of the deaths which occur in the island not more than one-fourth have been attended by a physician; so that 75 per cent of the causes of deaths as reported are of no value whatever, being purely conjectures on the part of the physician or the municipal secretary.

This makes the death statistics in the majority of the towns of the island of no value whatever, so far as the causes of death are concerned.

The attorney general is charged by the act to establish a civil register in the island of Porto Rico, approved March 9, 1911, with the duty of prescribing the forms to be used and the facts to be recorded in the registries. An effort was made to secure from him an order to the registrars to note when causes of death were based upon certificates issued by physicians who had attended the deceased prior to his death, and those which were seen by the physician or by the civil registrar only after the death had occurred, hoping by this means to secure accurate statistics for at least a certain proportion of the deaths. The attorney general at that time declined to allow of any such change in the regulations as prepared by him, so that the statistics of deaths, so far as the causes are concerned, are of no value whatever.

On June 14 the attention of the acting director of sanitation, Dr. Watson, was called to the existence of a probable case of bubonic plague. This case was visited and examined by him and the officers of the service, and the examination determined the case as a positive one of bubonic plague, this positive diagnosis being made on the 18th, the earliest possible time in which the result of the inoculation can be seen in the guinea pig. This examination by means of the guinea pig is the only recognized means of making a positive identification of the bacillus of the plague which, in the absence of an epidemic, was necessary before announcing its existence in the island.

This identification was made by the biological laboratory of this service, and the report sent to the insular board of health on June 18. The board of health, as required by law, declared the epidemic to exist, and recommendation was made under that date to the governor that a proclamation be issued declaring the existence of an epidemic of the plague. This proclamation was issued June 19, and is the shortest period on record elapsing from the discovery of the first case and the declaration of the epidemic, and the health authorities of Porto Rico are deserving of great credit for having unhesitatingly and without fear given to the public the facts at that time, and ever since. On the same date proclamations were issued setting forth the means to be adopted in the prevention of the plague, the destruction of rats, etc.

I arrived in Porto Rico from the United States on the morning of the 20th of June. Active steps were immediately taken for the eradication of the disease, so that within a period of less than three weeks it was under control, and its spread to the island in general prevented. As this campaign against the epidemic is still under way and more properly belongs to the fiscal year 1912-13, more detailed report will be made later on, it being sufficient to say at the present time that we have every reason to believe that there will be no spread of the disease outside of San Juan, and that the number of cases will be so limited as to be negligible.

The appropriation for the service of sanitation for the year was a general one, and did not specify the amounts available for any particular purpose. These expenditures have all been made subject to the approval of the governor. The amount expended so far as known to date for all purposes was \$639,029.84. Of this \$3,901.49 have been refunded on account of expenditures made under section 29, Act 68 of 1911, and section 31, Act 81, 1912, Laws of Porto Rico. A copy of the detailed report of the chief of the division of records and accounts is hereto attached and made a part of this report.

On March 14, 1912, an act was approved to reorganize the service of sanitation, defining the powers and duties of the director and the board of health, and in this way avoiding the constant sources of friction which had previously existed. This law went into effect the 1st of April, and the board appointed elected as president, Dr. Francisco del Valle, and as secretary, Dr. José Lugo Vifia. These gentlemen have labored constantly and efficiently in the duties entrusted to them of preparing the sanitary regulations, and are entitled to great credit for the self-sacrifice which they have shown, and for their earnest labor. The relations between the board of health and the director have always been most cordial, and the director personally feels very much indebted to the board for what it has done during the short space of time since the law went into effect. I attach hereto an extract of the proceedings of the board.

Under the organization as it existed prior to April 1, there were four inspection districts, each under the charge of a medical inspector. In the preparation of the new law, which provided for the appointment of an assistant director, it was believed that the inspection service could be properly performed by three, and the number of medical inspectors was reduced to two, the island being divided into three inspection districts, of one of which the assistant director has charge.

These inspectors have endeavored to visit every town in their districts with great frequency, making a careful inspection of each town during their visits, and additional inspections in special cases when so directed from this office, or in case of necessity known to them. In addition to this, I have personally visited every town in the island, and am familiar with the conditions existing in them. I believe that these frequent inspections are absolutely necessary to secure proper service, and that upon them more than any other thing will depend the success of our labors.

The improvement in the conditions of cleanliness of the towns, not only with regard to the public streets, but also as to hotels, restaurants, etc., has been a matter of public comment, even by the Chief of the Bureau of Insular Affairs, Gen. Edwards, upon his last visit to the island. Sanitary services have been rendered in many of the towns that were previously unknown, and the conditions of life have materially improved in every town on the island. But the final proof of the success of the service can only be shown in the diminution of the death rate, and the difference between the death rate in this and the previous year is so slight as to be negligible.

The service of practically all the officers and employees of the department has been so faithful and earnest that to mention by name any among them is almost to cast a reflection on the others; but because of the special activity shown by them, I desire to make special mention of Dr. Watson, Dr. Malaret, and Dr. Gomez Briscoe, and Mr. McCown.

Respectfully submitted.

W. F. LIPPITT,  
*Director of Sanitation.*

The GOVERNOR OF PORTO RICO,  
*San Juan, P. R.*

#### REPORT OF THE ASSISTANT DIRECTOR OF SANITATION.

OFFICE OF THE ASSISTANT DIRECTOR OF SANITATION,  
*(San Juan, P. R., September 1, 1912.)*

SIR: I have the honor to report as follows:

#### REMOVAL OF GARBAGE AND SWEEPING THE STREETS.

One of the first important questions the service of sanitation in the beginning of its organization was confronted with was that of sweeping the streets and removing the garbage from the different municipalities. It was quite naturally considered that by doing the work with our own garbage wagons and draft animals the result would be both economical and efficient.

Acting upon this idea the wagons desired were requisitioned for from the United States, the number being based upon the population of the towns. During the interim and until the wagons arrived, officials, in order to clean the towns, were instructed to make local contracts so worded that they could be annulled at any time by the service the work being done under their direction. In towns where no such contract could be made the officials hired bull carts and peons and did the work themselves, paying for it with money advanced by the municipal treasurers, who were immediately reimbursed by this service as soon as the pay rolls could be checked and vouchered.

In order to secure draft animals, in anticipation of the arrival of the wagons, a circular was issued to all officials of the island urging them to hunt for and purchase horses suitable for the work, but after a canvass of the entire island it was found that they could not be had in sufficient number, and that the majority of those obtainable were not of the proper size to warrant this service buying them. The average purchase price of \$125 was also out of proportion to the actual value, and it was subsequently discovered that the high cost of feeding horses was a matter over which the service hesitated. As a last resort, therefore, it was decided to make the ox the standard draft animal of the service. Although slower of movement, there was the advantage of the decreased cost of upkeep and of less chance to lose animals through glanders, which exists in Porto Rico to an unusual degree. Beside, a pair of oxen may be purchased for the price of one small horse. In some of the towns, however, of larger size and unusually long streets, as, for example, Arecibo, Mayaguez, and Guayama, horses were provided, and for San Juan and Ponce mules were imported from the United States. The service has purchased up to the present time 132 mules, 40 horses, and 202 oxen. Of garbage carts of different sizes, 115 have been purchased, in addition to 21 sprinkling wagons and 10 odorless excavators.

The purchase of oxen for the removal of garbage does not, however, solve the question entirely. There are many towns having only one pair of oxen, and the ox is

notoriously undependable. If, as often occurs, one of the oxen happens to fall sick, removal of garbage in that town practically ceases, because every cent is being used to the fullest capacity of the budget in each town, and if oxen are hired to take the place of those incapacitated for any reason there is no fund from which to pay the bill. More oxen to each town can not be purchased for the reason that only enough funds are appropriated to feed the animals as actually exist at present in each town. All towns are now provided with the means mentioned above to remove garbage. During the dry season in Porto Rico the towns whose streets are not sprinkled are affected by an insupportable amount of dust, and every town in the island, therefore, should be provided with a street sprinkler, and draft animals and "peones" to operate it. At the present time the only towns provided with them are: Aguadilla, Arecibo, Arroyo, Coamo, Guayama, Juana Diaz, Mayaguez, Ponce, San Juan, and Guayanilla. The odorless excavators have been a distinct help in keeping cesspools and latrines empty in many of the towns, and there should be more of them. The 10 purchased by the service were stationed as follows: Aguadilla, 1; Arecibo, 1; Fajardo, 1; Guayama, 1; Humacao, 1; Mayaguez, 1; Ponce, 2; and San Juan, 2.

From these stations the excavators have been sent from town to town to clean cesspools and latrines. In two or three stations the incomes received for cleaning cesspools, etc., have more than paid for the excavator stationed there. Since the beginning of the epidemic of bubonic plague in the island the service has taken advantage of the opportunity to clean every town in a very thorough manner, and it remains to be seen whether, with the rather inefficient means to do so, they will be kept in the same condition in the future.

#### EXTERMINATION OF MOSQUITOES.

The service of sanitation was unable to do any actual work in the extinction of mosquitoes until September 18, 1911, as nothing could legally be accomplished until a proper regulation to control the work was promulgated. Maj. R. E. Noble was detailed by the War Department to organize the service for the extinction of mosquitoes in Porto Rico, and although he and his assistant, Mr. E. W. Mitchell, arrived here from the Canal Zone as early as August 3, 1911, through one delay and another on the part of the insular board of health, the regulations were not published until September 18. During this interim, however, Dr. Noble and his assistant took this opportunity of making a complete and comprehensive survey of San Juan and its environments, noting at the time all the natural advantages for drainage as well as the topographical disadvantages with respect to permanent ponds, swamps, etc., which would subsequently have to be oiled regularly and constitute a constant expense, provided a method of draining them could not ultimately be found.

In anticipation, and in order to begin the work immediately after the regulations were approved by the executive council, Dr. Noble had chosen his inspectors and taught them the work relating to the classification, habitat, and manner of eradicating the larvae of the different families of mosquitoes.

When the regulations were formally approved, the city of San Juan, including Puerta de Tierra, Santurce, and Condado, were divided into seven districts, in each of which an inspector was placed with instructions to make a careful and minute canvass of each house and the patio thereof, taking into account and reporting daily each container in which breeding existed. The breeding places which could be removed or destroyed without loss to the tenants of the houses were eliminated on the spot. Wherever containers were found such as cisterns, barrels, etc., a written notice was handed the tenants of the premises by the inspector on forms furnished the latter, giving them a period of 20 days to render all barrels and cisterns on their premises mosquito proof, a record being made of the date, address of tenant, description of the container to be mosquito proofed, etc. In this way a complete file was obtained of each and every container existing in San Juan and its environments, after which it was easy enough to systematically set to work to eradicate them one by one. If upon reinspection the tenant had not shown any inclination to comply, the work was done by the service of sanitation and charged to the owner, as provided for in section 29 of law 68. It was observed early in the preliminary survey that in most of the barrios lying on the outskirts of San Juan and suburbs, the people kept their supply of water in barrels. This condition promised to be a great source of mosquito breeding, and in order to anticipate rendering the barrels mosquito proof a force of carpenters had been employed a sufficient length of time ahead to make enough tops for them. A sufficient number of butternut faucets had also been requisitioned for from the United States in order that when the tops were nailed on the barrels the water could be drawn from them. Barrels obviously unfit for mosquito proofing were destroyed immediately. Cisterns were mosquito proofed just as easily, but with more expense and labor. All



open cisterns were hermetically sealed with cement, and if the water was used pumps were placed in them. It was found necessary early in the beginning of the work to drain many of the low-lying seepage areas and many ponds, and for this purpose, beside the force of peons kept constantly at work, prisoners were obtained from the penitentiary to dig ditches. Those areas which could not be drained were systematically and regularly oiled, inspected, and reinspected.

It took several months of unremitting toil before there was any marked reduction of mosquitoes in San Juan, but when that condition was reached, and people began to sleep without mosquito bars in neighborhoods where it was difficult to live at all, Dr. Noble and the assistant director of sanitation carried the idea of mosquito eradication to all parts of the island, teaching the officials of sanitation in the different municipalities the manner of killing larvæ and urging them to do so.

It is to be regretted that in subsequent trips of inspection it was discovered that in most of the towns the mosquito work had been relegated to a condition of secondary importance. The present chief of the division for the extermination of mosquitoes has endeavored to impress the fact upon the officials of sanitation wherever he has visited that to the contrary it is of very great importance. It is very well known to those who have worked among the larvæ of mosquitoes in the island that the mosquito which transmits "yellow fever" is one of the most common here, and that malaria exists in all parts of the island. The above facts should certainly be sufficient to indicate the importance of the work. It is not meant to intimate that the officials have done nothing at all toward the extinction of the mosquito, because as a matter of fact most of them have done something, but if it is expected to control the propagation of this pest, the work must never cease. They can in no case ever be entirely eradicated, but by unremitting toil their breeding may be controlled. In most of the towns there is a very good reason why no more work has been done, especially since the beginning of the new fiscal year. In the fiscal year 1911-12 an extra peon was allowed each official for mosquito work alone, but in the beginning of this fiscal year the personnel was cut down to the actual number of men allowed by the budget, which in the majority of towns is hardly sufficient for the sanitary work alone.

Officials of sanitation in all the towns of the island have been provided with mosquito oil and most of them with barrel tops, but it is thought that during the epidemic of plague much of the mosquito oil was expended in sprinkling floors and walls as an insecticide, and considering the fact that only the small sum of \$1,500 was appropriated in the budget of the year 1912-13 for the purchase of mosquito material for the whole island, it would seem as if the division for the extinction of mosquitoes will be lacking in funds for this purpose very early in the year.

The regulations compiled by the insular board of health and approved by the executive council on September 18, 1911, through some oversight possibly, imposed the expense of installing drainage ditches upon the service of sanitation. This was obviously unjust, and the proposal for amending that clause in the regulations is now before the insular board, making it the duty of the owner, whether private, municipal, or insular, to drain all seepage areas and ponds existing within the confines of their property, and afterwards to keep the drainage ditches clean. Had this not been provided for the sum of \$3,288 allowed in the budget of this year for labor would have been depleted very soon. As it is, there will be no more than enough to do the work under the provision of section 31 of the act to reorganize the service of sanitation, approved March 14, 1912. During the epidemic of bubonic plague the work of the division for the extinction of mosquitoes was necessarily disorganized, the plague work being more urgent and important than the mosquito work, and the employees of the latter having been trained as inspectors were transferred from the mosquito division to the plague work. It may be stated, however, that so far as the mosquito work is concerned the existence of plague in San Juan was no misfortune to the island, because in an effort to eliminate rat-breeding places the result at the same time in many cases was effectually to rid the houses of mosquito breeding.

Beginning in the latter part of July, however, the regular work in this division was resumed, temporary employees having been appointed to take the places of the regular inspectors, who, upon the eradication of the plague, will return to their work in the mosquito division.

The mosquito situation as it exists in San Juan at the present time has reached its normal status, and from daily reports and personal observation, San Juan is comparatively free of mosquitoes. There has been a recent invasion of Santurce and Condado by a very vicious form of mosquito complained of bitterly by the residents of these districts. This mosquito, the *Culex perturbans*, while harmless so far as the transmission of disease is concerned, is peculiarly obnoxious on account of the immense numbers present and its voraciousness. It breeds on the edges of the bay in innumerable small depressions, originally containing salty water, but subsequently diluted to such an

extent with rain water as to allow the breeding of larvæ. These small pools are of such great number that it is impossible to consider draining them. This condition can only be met and eliminated in one way, and that is by filling in. To do this would be a work which, while very expensive, would result in far more of a gain than a loss. For example, if this were done, the bay would be dredged so that vessels could dock along any part of the bay front; the property would be enhanced in value more than I care to say; and, as a minor matter, the propagation of the class of mosquito mentioned above would cease. The filling in could be done by hydraulic dredges in a comparatively short time and may be done either by contract or by administration, the latter method in my opinion being preferable. As a tentative proposition, if the latter scheme was adopted, two hydraulic dredges could be purchased at a cost not to exceed \$30,000 each, which in reclaiming property, not only in San Juan but elsewhere in the island, would pay for themselves in a very short time.

Respectfully,

W. R. WATSON,  
*Assistant Director of Sanitation.*

The DIRECTOR OF SANITATION,  
San Juan, P. R.

[Translation.]

#### REPORT OF THE INSPECTOR OF SANITATION.

OFFICE OF INSPECTOR OF SANITATION,  
Ponce, P. R., August 29, 1912.

SIR: I have the honor to submit the following report on the work done during the year, as per your letter dated August 22, 1912.

As it would make too long a report if I should go into details of the conditions of each town, I shall give a general account of those towns in my own district when the work of sanitation was begun.

A short time after I was appointed inspector of the southern district I made a visit of inspection to the towns therein, in order to organize the work, appoint the personnel, make a detailed inspection of the sanitary conditions of each place, and to make a report thereof and on the best means of improving them.

I may say that the sanitation in these towns was a fiction, and that there was everything to be done. In Cayey I found commercial houses, the latrines of which, in a fearful condition, were surrounded by provisions of all kinds; and in Ponce, warehouses with stable in bad condition at one end of them, and these also containing provisions destined for sale to the public. Hotels and caf  s were in a state of utter neglect in all towns of the island, municipal jails, etc., were in such a state of filth that I have no words with which to describe them.

As may well be understood, in order to correct this state of affairs, without sanitary regulations to uphold us, as the superior board of health did not trouble itself to draw up many, the health officers had a difficult task before them.

Much has been done, however, due more than anything else to the efforts of the health officers backed by your moral support. Much was done even before the actual existing law went into effect on April 1, to remove public nuisances, but since that time, and acting under the regulations approved by the Executive Council, we have been able to do a great deal, although not as much as we would have liked, owing to many drawbacks. However, aqueducts are being built in Guanica, Yauco, and Pe  uelas, and in other towns there is talk of building, as in Guayanilla, Santa Isabel, Arroyo. In many towns the municipalities have improved the slaughterhouses, butcher shops, and meat markets, and in other towns new ones have been built, as in Las Mar  as, Maricao Sabana Grande, Barranquitas. New hospitals have been built in Guayama, Arroyo, and Lajas, and in almost all the towns, with the exception of Patillas and Maunabo, the authorities are doing everything to further the work of sanitation. Almost all bakeries, shops, milk depots, and other places where articles of food are sold have been much improved, filters have been put in, and everything made fly proof, etc. In hotels, caf  s, and restaurants the actual sanitary condition has much improved, and many barber shops are now equipped with apparatus for disinfecting their instruments, and nearly all are kept clean.

I am sure that gradually people will see the necessity of hygienic living and will be only too glad to comply with the regulations, not because of fear of the consequences for not complying with them, but from a personal wish to do so. And it will not be long before all the towns of the island will, wherever possible, be provided with aqueducts and sewerage systems. Ponce, Mayaguez, Yauco, Aibonito, and Cayey, of my district, are already thinking seriously of sewerage systems.

I desire to call special attention to one matter of great importance in all the towns of my district which is a source of extreme danger to public health, and that is to the question of latrines, the majority of which are in a deplorable condition.

There are so many poor people in all the different localities that it is impossible to compel them to build latrines under the conditions laid down by the regulations governing them. In two towns only, Maricao and Adjuntas, have proper cesspools been built, and I therefore lay great stress upon this fact for your consideration. Another matter also of great importance demanding attention is that of the milk to which, I have noticed, in many towns, neither the public nor the venders, and in some cases not even the employees of this service, pay much heed.

I have forwarded for your consideration, and for your indorsement to the board of health, if you see fit, a project for amending the regulation governing the sale of milk, which, if approved, will, I am sure, greatly diminish the number of deaths among children from gastro-intestinal affections.

With reference to infectious diseases, I may mention only the outbreaks of typhoid fever which have taken place in Yauco and Pefuelas and lately in a barrio in Cayey, while in Ponce and Mayaguez a few isolated cases have occurred. The measures adopted have been so efficacious that in Yauco the disease disappeared almost at once. In Pefuelas, despite the fact that there existed nearly 100 cases, the measures directed by you and faithfully carried out by your subordinates, have stopped the epidemic.

Two anemia stations were established in my district, one in Rio Pietro, in Yauco, which covers Lares, Maricao, Yauco, and Adjuntas, and another in barrio Mameyes, comprising Jayuya, Ciales, Barros, and Utuado. Both are giving good results.

During the year all the towns in my district have been visited, and in some cases as required, several times, as for instance, Pefuelas, 10 times; Juana Diaz, 11 times; Guayama, 8 times; Yauco, 6 times; Rio Pietro, twice; Cidra, twice; and Comerio, twice.

One hundred and twenty visits of inspection were made to the different localities.

In response to your orders I made an extra visit of general inspection to all the towns of the island, beginning on November 7 and ending on November 27, resting one day in San Juan. During the 19 days devoted to inspection I visited 66 towns and spent \$128.70.

During my spare time in Ponce I drew up a "Guia sanitaria," which was printed by your orders for use by the health officers.

When the bubonic plague broke out in San Juan at the end of June, I was made special inspector by your order and worked in the central office. I was afterwards sent to Carolina and Rio Piedras and later to Mayaguez, making a tour of inspection of all houses and buildings with a view to recommending reforms to make them rat proof.

Respectfully,

PEDRO MALARET,  
*Inspector of Sanitation.*

THE DIRECTOR OF SANITATION,  
San Juan, P. R.

#### REPORT OF THE MEDICAL INSPECTOR.

OFFICE OF THE INSPECTOR OF HEALTH,  
Hatillo, P. R., August 29, 1912.

SIR: I have the honor to submit the report of the work carried on by this office during the fiscal year 1912.

In accordance with the sanitation law and the orders received from your office, it is my duty to inspect the sanitary service of this district and to give an account of the results thereof. I commenced my work of inspection, making a tour of the towns of the district to study the organization of the sanitary service and to become acquainted with its needs. These, as well as those deficiencies of the law found in its establishment, were the object of my partial reports to that department. During my visits I found it convenient to call on the public establishments, taking detailed notes of all the defects observed therein, reporting them to your office and to the respective health officers. These were slowly corrected and prevented, making the sanitary conditions of the towns in my district continually better.

In subsequent trips I made it my duty to observe and take note of all other defects, especially those in the cleaning of the streets and yards, as well as the condition of latrines, which, as you can understand, was an important part in the betterment of the public health.

Having made a special study, prior to the approval of the sanitation law, of the mosquito and its relation with the profilaxis of "paludism," it became a pleasure for me to start the campaign against this insect, which I believe has been a continuous calamity to the inhabitants of the island. Toa Alta was the first town in which the health officer gave special time to the destruction of larvæ, emptying water barrels, draining ponds, and recommending the oiling of other breeding places, and it

is a pleasure for me so to report. Corozal, Manati, Hatillo, Arecibo, and other towns then received my special attention in this line of work, which has been continued since the approval of the regulations providing for the extinction of mosquitoes.

At present the decrease of this insect is very marked and it gives pleasure to observe the great number of cisterns, barrels, receptacles, etc., which have been made mosquito proof. This has been the result of a hard, continuous fight, and much of the work has been done in accordance with section 29 of the sanitation law.

There is a great deal of this work yet to be done but I am confident that the public, appreciating the advantages gained and the responsibility of those who do not comply with the orders issued, will no doubt within a short time derive greater benefits from this campaign. In regard to transmissible diseases we have had no one to regret during the fiscal year within this district. Work on the uncinariasis has been continued with great activity and with the best of results.

To close the report I respectfully call your attention to certain work necessary for the betterment of the sanitary condition within my district, among them being the study and construction of aqueducts and sewers for some of the towns, such as Bayamon and Aguadilla, cities which on account of their size and the progressive development of their inhabitants should have these improvements and the prevention of an inadequate water supply to such towns as Isabela and Quebradillas as happens frequently.

Yours, very respectfully,

A. RUIZ SOLER,  
*Medical Inspector.*

The DIRECTOR OF SANITATION,  
*San Juan, P. R.*

#### REPORT OF THE SANITARY ENGINEER.

OFFICE OF THE SANITARY ENGINEER,  
*San Juan, P. R., August 28, 1912.*

SIR: I have the honor to submit the following report as to work done during the past year under the division of sanitary engineering.

The undersigned was appointed sanitary engineer in February, 1912, and arrived in San Juan on February 15; previous to which date little work had been done in this division.

All plans for plumbing, latrines, cesspools, water works, sewers, etc., for the entire island, are sent to this office for approval.

Permits are issued and returned with the plans, and in many cases changes are suggested and in other cases where necessary, copies of standard plans are sent to be used in case of the ones presented.

Standard plans have been prepared for stables, dairies, latrines of several kinds, leaching cesspools, septic tanks, meat shops and milk shops. Plans for other structures are in preparation, with the object of giving definite suggestions when required, for all cases which are of frequent occurrence.

Surveys and maps have been made of the towns of Camuy, Hatillo, and Aibonito for the purpose of making an estimate as to the cost of both sewers and waterworks in the first two mentioned and for sewers in the other town.

Several visits have been made to Mayaguez and to Arecibo for consultation with the municipal authorities as to sewer and water questions and to the towns of Gurabo, Juncos, and Corozal.

Much time has been occupied in the duties incident to the insular board of health (of which the writer is a member) in the preparation of plumbing and other sanitary regulations. Considerable work has been done in connection with an examination of the water supply of San Juan, and also as to the disposal of waste from sugar centrals.

In common with other divisions of the service, there has been a great increase in the demand on this office due to the appearance of the bubonic plague. Various plans and regulations have been prepared for ratproofing buildings and all plans for buildings over 500 square feet in area are now sent to this office for approval and permits.

Reports have been prepared as to various methods of garbage disposal in San Juan and also as to the drainage of several swamps in Santurce.

During the year 786 plumbing permits have been issued for the following number of fixtures: Baths, 458; water closets, 766; sinks, 647; other fixtures, 309; total, 2,180.

The following additional permits have been issued during the six months ending June 30; previous to which time the record is not complete: Latrines, etc., 347; meat shops, bakeries, etc., 31; stables, 56; slaughterhouses, 23; total, 457.

Respectfully submitted.

F. W. DALRYMPLE,  
*Sanitary Engineer.*

The DIRECTOR OF SANITATION,  
*San Juan, P. R.*

[Translation.]

## REPORT OF THE INSULAR BOARD OF HEALTH.

OFFICE OF THE INSULAR BOARD OF HEALTH,  
*San Juan, P. R., September 1, 1912.*

SIR: I have the honor to submit the report of insular board of health for the period from April 1, 1912, to the end of the fiscal year.

The report of the previous insular board of health has been published in the Official Gazette.

The following sanitary regulations have been discussed by the board: As to the use of drinking cups in public places, tenement houses, plumbing, the transportation of corpses, cemeteries, inhumations, exhumations and cremations, and for ratproofing buildings. Rules and regulations governing the sanitary conditions to be observed in the urbanization of lands in Porto Rico and provisional regulations governing the use of the public laundry at Sal si Puedes as well as amendments made to those governing mosquito extermination and concerning garbage.

The executive council has approved the regulations governing the use of drinking cups in public places, tenement houses, and for ratproofing buildings in the island, and the amendments to the garbage regulations.

The amendments to the regulations governing mosquito extermination are pending the appointment of the conference committee, in accordance with the provisions of the sanitary law. The other regulations have been sent to the executive council through the director of sanitation.

In addition to those mentioned, the following have been presented to the insular board for discussion: General regulations governing sanitary conditions of buildings and its dependencies, and regulating constructions in towns, governing garbage, to avoid the contamination of food stuffs by flies, and governing chimneys and the coal to be used.

Respectfully,

José LUGO VIÑA, *Secretary.*

The DIRECTOR OF SANITATION,  
*San Juan, P. R.*

[Translation.]

## REPORT OF CHIEF, BUREAU OF VITAL STATISTICS.

OFFICE OF CHIEF, BUREAU OF VITAL STATISTICS,  
*San Juan, P. R., August 31, 1912.*

SIR: I have the honor to inclose herewith a "summary of the vital statistics of Porto Rico," corresponding to the fiscal year 1912.

The examination and comparison of these figures as compared with those for the previous fiscal year results as follows:

From July 1, 1911, to June 30, 1912, 39,874 births were registered in Porto Rico and adjacent islands, an increase of 34.69 per 1,000 in the population of the islands, which was estimated at the end of said year to be 1,149,396 souls. This result has been obtained by adding to the population of Porto Rico as per the census of 1910, twice the average of the annual increase of the population from 1899 to 1910, which was 31,384.

Therefore the average of births of this year shows a slight increase over that of last year. This will also be noticed in the authorized figures, inasmuch as 2,182 more births than the previous year have been registered; and comparing the births and deaths occurring in the present year, it appears that an increase of 12,267 souls over the population of Porto Rico had taken place.

The register of marriages shows 17,732 persons as having contracted marriage, which is at a rate of 14.13 per 1,000 of the total estimated population of the island. Twenty-four marriages more than the previous year were registered.

Taking the authorized figure of 27,697 deaths and a mortality rate of 24.02 per 1,000 of the estimated population of Porto Rico, an increase of 1,025 deaths over that of the last fiscal year is shown; but this is well compensated for by the excess of births during the previous year and also explains the increase of the population of the island.

The short time given to make a report does not permit including herein the general statistics containing all details and circumstances, but these will be published at the proper time in the official bulletin of the sanitation service. The monthly statistics are already being published in the bulletin.

I also inclose herewith a report of the deaths, showing the nationality of the deceased and the number of foreigners who died in Porto Rico during the last fiscal year.

It may be stated that the organization of this bureau was begun in April last, as before that date it was attached to the insular board of health, and the work was performed under a plan which did not give the results expected, but better results are expected next year. The work is done not only with the blank forms, books, and proper and sufficient material, but at the same time a general file is kept in bound volumes, with their corresponding indexes, and their utility will be better judged in the future than at the present time.

All the work of this bureau corresponds to the principles of the science of demography and to those practiced by civilized countries in similar bureaus.

Respectfully,

The DIRECTOR OF SANITATION,

San Juan, P. R.

ANGEL PANIAGUA,  
Chief Bureau of Vital Statistics.

The following table shows by months during the fiscal year 1911-12 the number of births and their color, sex, and civil status:

Months.	Race.		Sex.		Civil status.		Total.
	White.	Colored.	Male.	Female.	Legitimate.	Illegitimate.	
1911.							
July.....	2,394	688	1,553	1,529	2,117	965	3,082
August.....	2,811	917	1,903	1,825	2,615	1,113	3,728
September.....	2,550	747	1,712	1,585	2,300	967	3,297
October.....	2,465	665	1,579	1,581	2,190	970	3,160
November.....	2,299	732	1,545	1,496	2,106	925	3,031
December.....	2,290	649	1,468	1,471	2,007	932	2,939
1912.							
January.....	2,449	726	1,609	1,566	2,200	975	3,175
February.....	2,456	804	1,741	1,519	2,213	1,047	3,260
March.....	2,660	865	1,834	1,721	2,402	1,153	3,555
April.....	2,465	846	1,690	1,621	2,183	1,128	3,311
May.....	2,879	907	1,978	1,806	2,567	1,219	3,786
June.....	2,718	832	1,854	1,696	2,438	1,112	3,550
Total.....	30,436	9,438	20,466	19,408	27,338	12,536	39,874

The following table shows by months during the fiscal year 1911-12 the number of marriages and the nationality, ages, and previous civil status of the contracting parties:

Months.	Nationality.				Age.						Previous civil status.						Total.
	Natives.		For- eign- ers.		Minors of 20 years.		20 to 30 years.		Older than 30 years.		Single.		Wid- ower or widow.		Di- vorced.		
	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	Male.	Female.	
1911.																	
July.....	823	837	20	6	35	272	639	492	169	79	761	817	74	23	8	3	1,696
August.....	804	814	16	6	43	312	612	429	165	79	741	797	68	22	11	1	1,640
September.....	670	677	13	6	25	241	501	387	157	55	587	656	81	22	15	5	1,366
October.....	616	625	16	7	33	218	469	366	130	48	568	618	55	11	9	3	1,264
November.....	529	545	21	5	25	221	423	285	102	44	498	532	48	17	4	1	1,100
December.....	692	700	20	12	39	256	540	405	133	51	645	692	56	14	11	6	1,424
1912.																	
January.....	729	736	15	8	28	241	554	430	162	73	664	720	64	23	16	1	1,488
February.....	731	735	12	8	36	279	570	416	137	48	668	720	59	20	16	3	1,486
March.....	684	698	17	3	38	264	508	371	155	66	628	683	56	17	17	1	1,402
April.....	809	821	20	8	41	229	610	456	178	74	745	800	66	26	18	3	1,658
May.....	790	803	21	8	43	279	595	456	173	76	742	780	64	29	5	2	1,622
June.....	771	785	27	13	38	253	603	474	157	71	732	772	55	24	11	2	1,596
Total.....	8,648	8,776	218	90	424	3,135	6,624	4,967	1,818	764	7,979	8,587	746	248	141	31	17,732

The following table shows the number of deaths by months during the fiscal year 1911-12, and the color and sex of the deceased:

Months.	Color.		Sex.		Total.
	White.	Colored.	Male.	Female.	
1911.					
July.....	1,906	803	1,344	1,365	2,709
August.....	1,768	709	1,216	1,261	2,477
September.....	1,549	644	1,077	1,116	2,193
October.....	1,606	637	1,121	1,122	2,243
November.....	1,562	653	1,110	1,105	2,215
December.....	1,740	754	1,191	1,303	2,494
1912.					
January.....	1,785	788	1,311	1,262	2,573
February.....	1,585	661	1,161	1,085	2,246
March.....	1,453	664	1,071	1,046	2,117
April.....	1,354	656	1,013	997	2,010
May.....	1,459	650	1,105	1,004	2,109
June.....	1,584	637	1,149	1,072	2,221
Total.....	19,351	8,256	13,869	13,738	27,607

The following table shows by months during the fiscal year 1911-12 the nationality of the deceased:

Months.	Porto Rico.	Spain.	United States.	France.	Corsica (France).	Italy.	Portugal.	England.	Ireland.	Germany.	Austria.	Syria.	China.	Intertropical Africa.	Santo Domingo.	Cuba.	Danish West Indies.	English West Indies.	French West Indies.	Venezuela.	Other foreign countries.	Unknown.	Total.
<b>1911.</b>																							
July.....	2,677	14				1				1				3		1	1	5	1		2	3	2,709
August.....	2,449	16	2	1		1						1		1		1	3					2	2,477
September.....	2,163	13	2	1	1										3	3	3	2		1	1	3	2,193
October.....	2,221	10	1	1		2									2	1	3		1			1	2,243
November.....	2,196	8	1	2	1										2	1	2			1		2	2,215
December.....	2,499	11	3			2									2	1	3	1	1			1	2,494
<b>1912.</b>																							
January.....	2,536	17	1	1	1								1	2		2	1	1	4	1	1	4	2,573
February.....	2,209	14	3	2	1			2			1					1	4	3	1	2	2	1	2,246
March.....	2,089	12	1	1			1		1	1				2		3		2		1	1	4	2,117
April.....	1,982	12	3		1		1	1	1					2		1	2	2			1	2	2,010
May.....	2,066	11	2		1	1										4	2				3	1	2,109
June.....	2,184	16	2			2				1				3		1	5	2	1	2		2	2,221
<b>Total.....</b>	<b>27,261</b>	<b>154</b>	<b>21</b>	<b>9</b>	<b>7</b>	<b>10</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>15</b>	<b>3</b>	<b>11</b>	<b>32</b>	<b>19</b>	<b>9</b>	<b>8</b>	<b>11</b>	<b>26</b>	<b>27,607</b>

The following table shows by months during the fiscal year 1911-12 the causes of death:

Months.	Classification by diseases.													
	I. General diseases.	II. Diseases of the nervous system and of the organs of special sense.	III. Diseases of the circulatory system.	IV. Diseases of the respiratory system.	V. Diseases of the digestive system.	VI. Nonvenereal diseases of the genito-urinary system and anæmia.	VII. Puerperal state.	VIII. Diseases of the skin of the cellular tissue.	IX. Diseases of the bones and of the organs of locomotion.	X. Malformations.	XI. Diseases of early infancy.	XII. Old age.	XIII. Affections produced by external causes.	XIV. Ill-defined diseases.
1911.														
July.....	809	88	84	311	745	102	37	5	3	1	246	110	44	124
August.....	708	97	95	308	673	86	34	4	1	3	222	100	40	105
September.....	637	96	85	294	571	97	32	3	1	1	179	55	43	96
October.....	638	106	104	241	378	73	32	5	4	3	238	84	46	91
November.....	687	100	101	302	545	75	37	2	2	1	200	83	36	79
December.....	608	130	95	365	628	95	36	2	1	1	226	107	36	88
1912.														
January.....	678	113	119	425	606	102	52	5	3	5	224	124	27	90
February.....	581	97	97	351	529	98	39	5	1	...	227	117	40	61
March.....	556	87	94	293	487	84	46	4	...	3	252	99	50	62
April.....	466	100	84	283	502	80	44	12	1	1	221	89	51	76
May.....	497	90	104	257	577	82	45	7	1	4	231	97	60	60
June.....	540	89	103	293	612	82	37	7	1	6	230	113	41	67
Total.....	7,447	1,193	1,165	3,723	7,053	1,056	472	67	17	29	2,696	1,181	508	1,000
														27,607

[Translation.]

#### REPORT OF THE CHEMICAL LABORATORY.

The inspectors, in compliance with a plan to be determined in the future, will take no samples except when in accordance with said plan. A systematically conducted campaign, in which the inspectors will not expend their time and money in taking samples of foods in good condition but in getting those of food improper for human consumption will shortly show the benefit of the plan to be inaugurated which will inure not only to the benefit of the public but also of the honest dealer who is compelled to compete with those who do not comply with the law. This plan consists of an examination of the labels and an analysis of one selected article until all the different marks on the importations thereof into the island have been duly inspected, the Government being informed upon the completion of the investigation.

Bimonthly or quarterly reports should be published informing the public here as well as elsewhere of the work being done and the results obtained, which I am sure will be of use to those interested.

#### INSULAR FAIR.

At the insular fair last December, an exhibition of foodstuffs was made in connection with the general exhibition of the service of sanitation. For this purpose a pamphlet was published on the "Adulteration of Food and Counterfeiting of Labels" and distributed free, and in this way the public was taught how to test their foodstuffs without any extra apparatus.

We never had a better opportunity than this to get the public interested in the meaning of the pure food and drugs law, and to show it how to test its foodstuffs and to help the service of sanitation in making the dealers comply with the law, whereby not only were they protected from using adulterated foods but also from those who adulterate food or counterfeit labels.

#### FEDERAL PURE FOODS LAW.

In November, 1911, we received from the Department of Agriculture at Washington, through the director of sanitation, a letter appointing the director of this labo-



ratory chemist of the Bureau of Chemistry of the Department of Agriculture, said appointment effective December 1, 1911.

During the year I have distributed among inspectors and health officers of the island, circulars and instructions received from the Department of Agriculture and translated into Spanish concerning the collection of samples, and the duties of the inspectors until after the court had decided the matter.

We have also translated and published from time to time in the Official Gazette, the Sanitary Bulletin, and in some of the daily papers an extract of the "Decisions of the Inspection of Foods" as published by the board of food inspection, created by the law of June 30, 1906.

The director of sanitation and the director of the laboratory have had frequent interviews with the members of the Stock Exchange of San Juan, where matters of importance in regard to the law have been discussed. In these interviews we have explained to the members all the details which are of importance in connection with the best products of this market.

The fact that the most severe law has no effect on the milk adulterators is clearly shown. During the fiscal years 1903, 1904, 1905, 1906, 1909, 1910, and 1912 the adulteration of milk was held down to the following percentages: 20.7, 23.8, 25.8, 28.7, 23.4, 21.3, and 26.6. During the fiscal years 1907 and 1911 the figures went up to 37.0 and 50.5 per cent, respectively.

#### EGGS.

The egg inspector, under the direction of the health officer of San Juan, has destroyed in the city alone, during the fiscal year, 129,023 eggs unfit for human use, which being sold at 8 for a quarter represents a loss of \$4,031.97.

[Translation.]

#### REPORT OF DIRECTOR OF THE BACTERIOLOGICAL LABORATORY.

BACTERIOLOGICAL LABORATORY,  
OFFICE OF THE DIRECTOR,  
San Juan, P. R., September 1, 1912.

SIR: I have the honor to hand you this statement of the work done by our bacteriological laboratory during the fiscal year ending June 30, 1912.

We have done a considerable amount of work. Two thousand five hundred and sixty-eight analyses give a higher percentage than other laboratories better equipped than ours, and if we take into consideration the fact that of these 119 have been of milk and 14 of water, both of which are of great importance, the work of this laboratory will be more apparent.

Nevertheless there are great defects to be corrected, as follows:

1. The bacteriological analyses of the different samples of water show that most of it considered drinkable and used for public consumption is contaminated by animal excreta and contains pathogenic bacteria and principally bacillus *Coli commune*. Some of it has been the cause of typhoid fever epidemics, such as in Pefíuelas. In my opinion it is of urgent necessity to establish a division in this laboratory for the exclusive purpose of making bacteriological analyses of water, with the view of making bacteriological analysis of all the waters used for human consumption on the island.

It is my duty to inform you that owing to the difficulties in the transportation of samples, it will not be possible to make an exact analysis except in cases where the water arrives in the laboratory within the 12 hours after having been taken. The Technological Laboratory of Massachusetts does not take samples of water after 10 hours from its collection.

As this would not be possible in some cases and as, if the bacteriological analyses of the waters is carried on in accordance with my recommendations, the service will have a great amount of work during the first two years of its establishment in finding the microbiography of the waters of Porto Rico, I think that the most convenient method would be to establish a division in this laboratory, with sufficient material and apparatus to carry to places where water is to be examined and to be at all times ready to make analyses of water at the place the sample is taken.

This of course would require the service of an assistant bacteriologist and a helper, exclusively for this work.

2. The bacteriological analyses of the 14 samples of milk of San Juan show that all the milk that is consumed in the city, except that of the University Farm Dairy, contains an astonishing number of microbes, in many cases twenty times greater than that accepted by laboratories for milk of good quality.

In my opinion this is a matter of great hygienic importnace, since some milks that we find with a chemical composition superior to normal are nevertheless bacteriologically unfit for consumption.

Therefore I beg to suggest that the milk inspectors, working in harmony with this laboratory, submit samples of all the milk consumed in the city. This is a work of great importance and responsibility, but I think it can be done by the personnel actually in the laboratory.

3. We frequently find that preventive vaccine virus for typhoid fever, rabies, bubonic plague, smallpox, etc., is spoiled on account of the time kept in store, and as it is ordered from laboratories outside of the island which do not exchange it for new virus, the Government loses the amount invested, or if it is used no results are obtained.

I desire to suggest the advisability of establishing a division to take charge of the making of vaccine virus.

This would increase the technical personnel of the laboratory by, at least, one bacteriologist in charge of this division and one assistant and the securing of the necessary apparatus and laboratory.

4. It is also necessary to establish a division for the purpose of investigating all problems connected with our special pathology.

Very respectfully,

Dr. GONZALEZ MARTINEZ,  
*Director of the Laboratory.*

The DIRECTOR OF SANITATION,  
*San Juan, P. R.*

## Report of the Biological Laboratory—Work done during fiscal year 1911-12.

1911.

	July.			August.			September.			October.			November.			December.		
	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.
Human blood:																		
Typhoid—																		
Widal reaction.	88	38	133	89	30	91	37	31	70	34	12	46	40	16	60	50	23	73
Widal, doubtful.				2			2			3			4			5		
Paratyphoid B.																		
Malaria.		8	8	7	15	22	4	14	18	4	12	16	8	11	19	3	9	12
Filariasis.																		
Syphilis—																		
Wasserman.	1	2	3	8	9	17	17	3	20	4	6	10	1	4	5	2	3	5
Forges.																		
Shurman.																		
Cancer (Egbert reaction).																		
Bacillus pestis investigations.																		
Bacteriological analysis.																		
Microscopical search.			2						2						4			2
Citrochromical diffuse count.																		
White globules count.																		
Red globules count.																		
Hemoglobin dosification.																		
Bovine cattle blood:																10		10
Anthrax.																		
Bacteriological (swine).																		
Texas fever.																		
Urine:																		
Chemico-microscopical analysis.			11			9			11			11			9			15
Chemical analysis.			3			7			2			2			3			7
Microscopical analysis.			7			2			5			10			6			
Diazo-reaction analysis.						2												
Experimental Koch bacillus.																		
Exudate and secretions (sputum):																		
Tuberculosis—																		
Microscopical examination.	6	12	18	9	11	20	12	9	21	11	13	24	9	15	24	7	7	14
Microscopical examination.																		
Athiumin (Roger reaction).																		
Phaenimicrococcus.	1	1	2		1	1	5	2	7	1	2	3	1	1	1		2	2
Bacillus pestis.								1	1									
Other bacteria.														1	1			





## Report of the Biological Laboratory—Work done during fiscal year 1911-12.

1912.

	January.			February.			March.			April.			May.			June.			Grand total.		
	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Doubtful.
<b>Human blood:</b>																					
Typhoid—																					
Widal reaction.	29	27	57	18	22	40	19	10	33	34	32	72	25	24	56	19	31	51	452	296	50
Widal, doubtful.	1			8			4		2	6			7			1				2	
Paratyphoid B.																					
Malaria.	1	2	3	3	12	15	2	6	8	2	9	11	1	6	7		14	14	35	118	
Filaria.		1	1		4	4	1		1	2	2						2	2	6	22	
Syphilis—																					
Wasserman.							9	6	15	3	3	6	4	4	9	2	2	4	51	42	1
Forges.																2					
Shurman.																2					
Cancer (Egbert reaction).																3					
Bacillus pestis investigation.																3					
Bacteriological analysis.																3					
Microscopical search.																1					
Citrochemical diffuse count.																					
White globules count.																					
Red globules count.																					
Hemoglobin dosification.							1		1												
Bovine cattle blood:																					
Anthrax.																					
Bacteriological (swine).		3	3				1		1											3	
Texas fever.																					
Urine:																					
Chemico-microscopical analysis.																					
Chemical analysis.			13			23			14			14			10			10			
Microscopical analysis.						1			1			4									
Diazo-reaction analysis.			11			7			3						4			1			
Experimental Koch bacillus.																			2		
Exudate and secretions (sputum):							1		1											1	
Tuberculosis—																					
Microscopical examination.	11	14	25	8	18	26	9	10	19	5	14	19	5	10	15	2	5	7	94	138	
Inocological examination.																					
Albumin (Roser reaction).																					
Pneumococcus.	1		1	2		2	1	2	3	1	1	1	1	2	3	1	2	2	13	15	
Bacillus pestis.																					
Other bacteria.	2		2				3		3	1		1				2	1	2	9	1	

*Report of the Biological Laboratory—Work done during fiscal year 1911-12—Continued.*  
1912—Continued.

	January			February			March			April			May			June			Grand total		
	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.	Positive.	Negative.	Total.
Human nasal secretions: Leprosy.....																					
Serosity:																					
Leprosy.....	1	1	1	1	1	1	2	3	5	1	1	1	3	3	3	6	8	14	3	4	7
Treponema pallidum.....																					
Pus:																					
Leprosy.....																					
Treponema.....																					
Bacillus pestis.....																					
Staphylococcus.....																					
Pyogenic bacteria.....				1	1	2	2	2	4							1	1	2	1	1	2
Exudates:																					
Urethral (gonococcus).....	7	0	13	2	4	6	5	3	8	2	1	3	1	1	2	1	1	2	36	36	72
Pharyngeal (diphtheria).....				5	5	10	2	3	5	4	9	13	1	1	2	1	3	4	10	24	34
Pleuritic.....																					
Koch bacillus, microscopical examination.....																			1	1	2
Koch bacillus, inocscopical.....																			1	1	2
Koch bacillus, experimental.....																			1	1	2
Other bacterial, microscopical.....																			2	2	4
Chancroid (syphilis).....	1	1	2																		
Hydrocele:																					
Bacteriological.....																					
Microscopical, Koch bacillus.....																					
Inocscopical, Koch bacillus.....																			4	4	8
Experimental, Koch bacillus.....																			4	4	8
Other exudates.....																					
Blastomycetes.....																			1	1	2
Leprosy.....																					
Liquids.....																					
Prostatic (gonococcus).....																					
Ganglionic (plague).....													1	1	2	25	18	43	1	1	2
Cephalo-rachidian liquid: Bacteriological.....																					
Excretions:																					
Intestinal parasites.....	4	11	15	7	17	24	4	11	15	5	8	28	10	8	37	3	9	14	116	100	216
Uncinariasis.....																			40	40	80
Trichocephalus.....																			21	21	42
Bilharzia.....																1	1	2	4	4	8
Ascariæ.....													5	5	10				9	9	18

[illegible]

### RECAPITULATION.

Total positive.....	919
Total negative.....	1,173
Total investigations made.....	2,568
Total samples not accepted.....	69

Dr. GONZALEZ MARTINEZ,  
*Director of the Biological Laboratory.*



[Translation.]

## REPORT OF CHIEF, BUREAU OF TRANSMISSIBLE DISEASES.

OFFICE OF CHIEF, BUREAU OF TRANSMISSIBLE DISEASES,  
*San Juan, P. R., August 31, 1912.*

SIR: It would be a difficult task to give you all the details of the labors performed by this office during the fiscal year ending June 30, 1912.

This office, which in the future will be a very important branch of the service by reason of the nature of its duties in respect to the general sanitation of the island, now has charge of the prevention of transmissible diseases, and especially of anemia, and the work of general disinfection.

The principal diseases that have occurred during the year are typhoid fever, malaria, and whooping cough, which have been epidemic in some towns more than in others, and it has generally been impossible to determine any special conditions or causes that would contribute to or bring about these epidemics in such towns more than in others.

Typhoid fever scourged San Juan during July, August, and September, and decreased gradually from 42 cases in July to between 4 and 6 about the end of the year. Corozal, Yauco, and Mayaguez also had epidemics of typhoid fever.

In a barrio of Manati an epidemic of typhoid fever occurred, and it became necessary to establish a temporary hospital there, the efficient services of which resulted in stamping it out. The result of these cases showed that the sanitary treatment of the sick is a great assistance to pharmacological medicine, and that the isolation of patients, in preventing the pathologic excreta from becoming a breeding place for infectious germs is effective in preventing the spread of disease.

Our experience with these cases has taught us some valuable lessons, and I especially recommend that in the towns of the island, and particularly those where typhoid fever exists, no manure of any kind be allowed to accumulate; that all latrines be made fly proof, and where this is not possible, that the municipalities be required to provide sanitary latrines at such points in the most densely populated districts as may be deemed advisable.

Our statistics show that malarial poisoning has been very severely felt in the towns of Guayama, Fajardo, and other towns on the south side of the island. Even where no specimens were sent to the laboratory, the clinical observations were sufficient to warrant the conclusion that there were great numbers of infectious mosquitoes, and this resulted in a persistent fight by the service against these insects until the situation improved.

It is worthy of note that the number of cases of malaria reported in San Juan has been very small, and at the same time it is publicly noticed that the residents of San Juan have not been troubled with the presence of mosquitoes since the fight for their extinction was commenced.

It is undoubtedly due to the campaign of vaccination all over the island that varioloid and smallpox have almost disappeared, there having been only 17 cases of the latter and 235 of the former in the whole island. This service is well established and will be persistently followed up until these diseases have been entirely eradicated, and practically speaking this has already been accomplished, since in the great majority of cases, or about 95 per cent of the cases that have come under our observation, the disease manifested itself in a very mild form, only one death having occurred from this cause in Aibonito, one in Santa Isabel, and one in Patillas.

There have been only two cases of scarletina—one in Manati and one in Ponce.

Diphtheria has been noticeably scarce during the year, only 84 cases having been reported to this office, with 20 deaths from this cause, and we are forced to the conclusion that all the cases have not been reported to us, since the scientific means of combating this disease are such that 23 per cent of deaths is very excessive. In the city of Ponce 14 cases of diphtheria were reported, and an investigation in the schools by the health officer of that city with a view to determining the carriers of the bacillus was entirely negative in result.

Whooping cough has occurred in different points in the island, and especially in the western district, in San German, where 134 cases were reported, appeared the largest number. Our statistics show 119 deaths from this cause. It will be observed that these figures do not give a true showing, the same conditions existing with respect to this disease as with pulmonary tuberculosis, which will be taken up later.

Epidemic parotiditis contributed 173 cases to the list of contagious diseases reported in the whole island, 93 of which occurred in the western district, and 90 of these at Aguadilla. This disease broke out in the district jail at Guayama and was the cause of important sanitation work done there, to the extent that the jail was emptied of its prisoners so that the service of sanitation in conjunction with the office of the director

of prisons could combine their efforts toward the extinction of the disease, which was accomplished not only in that institution, but in the city of Guayama as well.

A great deal should be said about the white plague, but we are unable to give this subject the consideration that it deserves because of the haste required in preparing this report. Thirteen hundred and ninety-nine cases of pulmonary tuberculosis were reported, and 1,678 deaths from this cause were registered, so that it will readily be seen that only a small portion of the cases of tuberculosis are reported to this office, and that this disease has reached a point where it is endured by the sufferers and their families and regarded as a necessary evil, a physician being called only in the most extreme cases. It is no exaggeration to affirm that 80 per cent of the sufferers from tuberculosis, if attended at all by a physician, are not treated regularly, and this is undoubtedly the reason for the extreme unreliability of the statistical figures.

In the special hospital for lepers we have 20 men and 10 women.

The treatment and prevention of anemia was started during this fiscal year. This work had been completely paralyzed in July, 1911, but was again started in September by establishing stations in places where they were most urgently needed, and at the end of the fiscal year we had 43 stations, where 26,861 patients had been attended. Twenty-four per cent were cured, leaving 61 per cent under treatment. But I must say that 13 per cent went to stations requesting treatment and did not return. The death rate was very low, as it reached only 0.123 per cent.

Toward the end of the year, following your instructions, I requested the directors of stations to report the number of patients with cataracts, and 74 were reported.

As it is my desire to make this report as brief as possible, I will not make special mention of the bubonic-plague epidemic discovered in San Juan during June last. This plague attracted the attention of all the people and was a problem for sanitary authorities during that month, but a few weeks after the first cases appeared the epidemic was under control. The letters and reports which this office has submitted to you will be of interest when you take up this important matter.

In an additional report which I intend to prepare I will try to show that over 80 per cent of the deaths in the island from all kinds of diseases, and 20 per cent of those who die from transmissible diseases, have not been seen by any doctor. It is poor practice to make a doctor certify the death of any person for the purpose of burial simply on the statement of neighbors or persons who knew nothing about the disease.

I am of the opinion that the sanitation service will have to establish two kinds of death certificates; one, regular, where the doctor has attended the deceased and fully knows the cause of death; and the other, to be issued by the doctor on the information received from the relatives; this in order to comply with the requirements of the law.

Vaccination has been very extensive all over the island, not only with the smallpox vaccine virus, but also with antityphoid emulsions, antidiphtheritic serum, anti-ectriectococic serum, antiestafilococic serum, and lastly with the antipesti virus.

Disinfections have been made regularly and completely in San Juan, and I hope that the same results will be obtained throughout the island where we may have necessity of installing disinfecting stations.

Respectfully,

DR. GOMEZ BRISO,  
*Chief, Bureau of Transmissible Diseases.*

The DIRECTOR OF SANITATION,  
San Juan, P. R.

*General disinfections during fiscal year 1911-12.*

Typhoid fever.....	159
Tuberculosis (pulmonary).....	264
Varioloid.....	13
Smallpox.....	5
Diphtheria.....	18
Measles.....	2
Syphilis.....	1
Malaria.....	4
Parotiditis.....	10
Dysentery.....	3
Tetanus.....	4
Leprosy.....	1
Plague.....	20
Glanders.....	3
Pyemia.....	1
Whooping cough.....	5
Exhumations.....	12
Miscellaneous.....	39
<b>Total.....</b>	<b>564</b>

*Partial disinfections during fiscal year 1911-12.*

Typhoid fever.....	1,814
Tuberculosis.....	878
Parotiditis.....	18
Varioloid.....	100
Diphtheria.....	152
Measles.....	22
Dysentery.....	24
Total.....	<u>2,998</u>

*Disinfections of the public schools.*

General:		Partial:	
In January.....	19	In January.....	589
In April.....	1	In April.....	<u>532</u>
	<u>20</u>		<u>1,121</u>

*Number and character of the cases of transmissible disease (by towns) occurring in Porto Rico during the fiscal year 1911-12.*

[illegible]

*Number and character of the cases of transmissible disease (by towns) occurring in Porto Rico during the fiscal year 1911-12—Continued.*

Town.	Ty. phoid fever.	Small- pox.	Varic- eloid.	Scabi- tina.	Diph- theria.	Bu- bonic plague.	Dysen- tery, epi- demic.	Menin- gitis, cerebro- spinal.	Whoop- ing cough.	Parot- itis, epi- demic.	Palu- dism.	Tuber- culosis.	Glan- ders.	Lep- rosy.	Sph- erul- culosis, neon.
Rio Grande.....	4				1				5		10	4			
Adela.....	17								27		244	21			
Najabo.....	18				3				3	4	471	10			
Naguabo.....	14	2	2		2				17		3	12			
Vinaco.....	6	1	1		1						3	8			
Vieques.....											2	1			
Culebra.....	7				1		2				12	49			3
Yabucoa.....												3			
Manabo.....		1										2			
Patillas.....	14											11			2
Sancti Spiritus.....	20				2		1					15			1
Las Piedras.....															
Mayaguez.....	74	2	2		13		6	2	27		11	134		1	2
Agasco.....	31	1					20	4	11		18	47			
Aibonito.....	1								1		4	3			
Aguadilla.....	2	1						1			9	8			
Aguadilla.....	33		1						33	90	20	70			3
Barcelo.....	6	1	8								1	8			
San Sebastian.....			7						134			19			1
Moca.....	6								32			7			
Martinez.....	7		1						3	1		3			
Las Marias.....			1							1	2	7			
Cabo Rojo.....	20								2			7			
Vieja.....	3											3			
Zaoco.....	93				3			2	64		63	64			
San German.....	5									1	1	2			
Sabana Grande.....	11											3			
Total.....	950	17	235	2	84	23	43	16	607	173	2,516	1,399	1	9	35

Grand total, 6,128.

The following table shows the number of deaths from transmissible diseases in all towns of the island during the fiscal year 1911-12:

Towns.	Typhoid fever.	Smallpox.	Varicell.	Scarlatina.	Diphtheria.	Bubonic plague.	Dysentery epi- demic.	Meningitis cere- bro-spinal.	Whooping cough.	Parotiditis.	Paludism.	Tuberculosis.	Glanders.	Leprosy.	Cutaneous syph- illis.
Arecibo.....	6						2	2			41	63			1
Camuy.....							1	2	1		17	10			
Hatillo.....											14	5			
Quebradillas.....								6			3	3			1
Lares.....	2								1		3	23			
Utusado.....	2						7		15		8	17			
Jayuya.....	3				1		7	2	17		2	15			6
Manati.....	3			1	1			3	4		2	53			
Barceloneta.....								3			41	12			
Ciales.....												17			
Morovis.....	4								4		6	6			1
Vega Baja.....	4										6	29			
Vega Alta.....	3										6	5			
Toe Baja.....	3										18	23			
Corozal.....	6										7	16			
Toe Alta.....	1								4		3	8			
Bayamon.....	7								6		26	72			3
Naranjito.....															
Ponce.....	4				1		4		2		70	191			1
Guayanilla.....	2						9	1	3		6	7			
Penuelas.....	1										4	17			
Adjuntas.....												4			
Juana Diaz.....	1				1		1		8		105	21			
Coamo.....	1								3		16	14			
Santa Isabel.....	1	1						1			41	6			
Barranquitas.....	2								3		11	13			
Barros.....	3								2		1	9			
Comerio.....	1							7	4		5	15			
Cayey.....	3										1	25			
Aibonito.....	6		1					1			3	23			1
Cidra.....	2							3							
Guayama.....	12					1		1	2		57	41			1
Arroyo.....	3										31	20			
Salinas.....	8									1	25	18			1
San Juan.....	25				2	10	2	10		1	14	229			3
Rio Piedras.....	1								1			7			
Carolina.....	1					1									
Caguas.....	12				7			6	15		50	92	2		4
Aguas Buenas.....															
Rio Grande.....	2							6	4		18	3			
Fajardo.....	6			1		4	1	1	2		11	20			
Lola.....						1					7	1			
San Lorenzo.....												2			
Naguabo.....	3										25	15			
Humacao.....	4							2	2		6	5			
Vieques.....	2										8	3			
Culebra.....															
Yabucoa.....											20	35			
Muanabo.....											31	8			
Patillas.....	1	1							6			4			
Juncos.....	3							3			17	16			1
Guabo.....	2								1		2	22			
Las Piedras.....															
Mayaguez.....	17				2		1	1	14		32	141			2
Anasco.....	9				1		21	3	1		3	36			1
Rincon.....	1								3		3	6			
Aguada.....											1	1			
Aguadilla.....	8								8		4	75			
San Sebastian.....	3								7		2	18			
Maricao.....															
Las Marias.....											4	2			
Cabo Rojo.....															
Cabo Rojo.....	16				1		1				19	40			
Lajas.....	2							9			3	4			1
San German.....	2								6			9			
Sabana Grande.....	2										26	18			
Yauco.....	17				2			2	4		40	46			
Total.....	131	2	1	1	20	13	60	81	159	2	979	1,678	2	0	27

The total number of new cases of uncinariasis in the 43 stations working during the fiscal year were 26,861, classified as follows:

	Number.	Percent- age.		Number.	Percent- age.
Race:			Age—Continued:		
White.....	22,896	85.24	From 20 to 39 years.....	10,061	37.530
Colored.....	3,965	14.76	From 40 to 59 years.....	3,727	13.875
Sex:			More than 60 years.....	565	2.103
Male.....	14,083	52.43	Clinical form:		
Female.....	12,778	47.57	Benign.....	4,321	16.086
Age:			Moderate.....	11,139	41.489
Less than 1 year.....	2	.007	Intense.....	10,151	37.790
From 1 to 9 years.....	3,068	11.421	Very intense.....	1,250	4.653
From 10 to 19 years.....	9,418	35.061			

Your attention is called to the fact that the number of cases of the form "very intense" during the last fiscal year gave a percentage of 5.65 and that the results obtained were:

	Number.	Percent- age.		Number.	Percent- age.
Cured.....	6,643	24.731	Left treatment.....	3,682	13.707
In treatment.....	16,473	61.330	Dead.....	63	.230

The following table shows the total number of persons attended at the 43 anemia stations, classified by color, sex, age, clinical form, and result of same during the fiscal year 1911-12:

	Total.		Total.
Color:		Clinical form:	
White.....	22,896	Benign.....	4,321
Black.....	3,965	Moderate.....	11,139
Sex:		Intense.....	10,151
Male.....	14,083	Very intense.....	1,250
Female.....	12,778	Result:	
Age:		Cured.....	6,643
Less than 1 year.....	2	Under treatment.....	16,473
From 1 to 9 years.....	3,068	Left treatment.....	3,682
From 10 to 19 years.....	9,418	Dead.....	63
From 20 to 39 years.....	10,061	Cataract.....	74
From 40 to 59 years.....	3,727	Total.....	26,861
Over 60 years.....	565		

#### REPORT OF CHIEF, DIVISION OF RECORDS AND ACCOUNTS.

OFFICE OF CHIEF,  
DIVISION OF RECORDS AND ACCOUNTS,  
San Juan, P. R., August 28, 1912.

SIR: I have the honor to submit herewith statement of expenditures on account of the sanitation service and of the receipts for work performed, including charges noncollectible or pending, during the fiscal year 1911-12, as follows:

#### *Digest of expenditures, fiscal year 1911-12.*

From "Sanitation service of Porto Rico, fiscal year 1911-12, indefinite":

For sanitation service, exclusively—

Automobiles.....	\$3,055.80
Construction of buildings.....	8,915.83
Cables and telegrams.....	266.70
Chemicals and disinfectants.....	13,576.22
Clothing, bedding, etc., quarantine hospital.....	66.00
Coaches.....	783.09

## From "Sanitation service of Porto Rico, fiscal year 1911-12, indefinite"—Continued.

## For sanitation service, exclusively—Continued.

Feed and care of animals.....	\$6,747.40
Forage.....	9,440.00
Freight and cartage.....	5,851.59
Furniture and fixtures.....	10,256.38
Harness.....	1,364.97
Hire of carts and oxen.....	9,958.18
Labor.....	115,733.61
Laboratory apparatus.....	357.50
Lights and water.....	1,293.45
Live stock.....	44,289.32
Miscellaneous supplies and expenses.....	29,589.31
New laboratories.....	7,227.51
Postage.....	1,719.99
Rent.....	7,232.40
Repairs, harness and wagons.....	1,563.61
Salaries.....	272,601.99
Stationery.....	7,211.20
Subsistence.....	1,443.99
Telephones.....	772.24
Tools.....	1,361.87
Travel expenses.....	9,895.01
Wagons, all kinds.....	22,387.01

Total for sanitation service, exclusively..... \$594,962.17

For "Control and suppression of epidemics":.....

Salaries.....	813.80
Chemicals and disinfectants.....	1,962.17
Labor.....	6,573.01
Subsistence.....	7.43
Miscellaneous supplies and expenses.....	1,595.12
Cables and telegrams.....	175.49
Travel expenses.....	311.94
Harness.....	173.00
Live stock.....	3,755.00
Hire boats, lighters, and trucks.....	2,648.50
Wagons, all kinds.....	986.00
Hire of carts and oxen.....	1,337.53
Killing and burial of animals.....	229.96
Buildings, quarantine hospital.....	270.27
Disinfectors' and patients' clothing.....	524.97
Lights and water.....	2.20
Camp Loubriel, buildings.....	1,663.24
Camp Borda, buildings.....	2,220.69
Telephones.....	10
Furniture, fixtures, and tools.....	612.12

Total for control and suppression of epidemics.....	25,871.54
For interior department, drain at stop 6.....	128.91
For second insular fair.....	821.53
From "Improvements for the leper colony" (no fiscal year):	
Launch and launch supplies.....	1,173.69
Buildings.....	1,461.76

Total.....	2,635.45
From "Contingent expenses, leper colony, fiscal year 1911-12":	
Salaries.....	3,397.56
Subsistence.....	4,712.29
Clothing, bedding, etc.....	3,099.33
Travel expenses.....	71.75

Total..... 11,260.93



From "Emergency fund for control and suppression of epidemics" (no fiscal year):

For provisional hospital at Rio Arriba—

Salaries.....	\$261. 00
Chemicals and disinfectants.....	119. 43
Labor.....	51. 00
Rents.....	42. 00
Miscellaneous expenses and supplies.....	88. 14
Subsistence.....	389. 41
Travel expenses.....	9. 00
Freight and cartage.....	2. 00

Total..... \$961. 98

For bubonic plague—

Salaries.....	616. 12
Chemicals and disinfectants.....	5. 00
Labor.....	1, 444. 73
Postage.....	100. 00
Cables and telegrams.....	1. 19
Travel expenses.....	61. 30
Hire of carts and oxen.....	35. 99
Burial of animals.....	22. 50
Disinfectors' clothing.....	80. 50

Total..... 2, 367. 33

Grand total..... 639, 029. 84 639, 029. 84

#### RECAPITULATION.

From "Sanitation service of Porto Rico, fiscal year 1911-12, indefinite:"

For sanitation service.....	\$594, 962. 17
For control and suppression of epidemics.....	25, 871. 54
For interior department.....	128. 91
For second insular fair.....	821. 53

\$621, 784. 15

From "Improvements for the leper colony" (no fiscal year)..... 2, 635. 45

From "Contingent expenses, leper colony, fiscal year 1911-12"..... 11, 280. 93

From "Emergency fund for control and suppression of epidemics" (no fiscal year):

For provisional hospital, Rio Arriba.....	961. 98
For bubonic plague, entire island.....	2, 367. 33

3, 329. 31

Total..... 639, 029. 84

#### RECEIPTS.

For work performed under section 29, act 68, 1911, and section 31, act 68, 1912, Laws of Porto Rico:

Amount collected and deposited.....	\$2, 799. 05
Amount collected and pending deposit.....	494. 25

\$3, 293. 30

Noncollectible..... 228. 19

Pending, not determined, but considered noncollectible..... 380. 00

3, 901. 49

Respectfully submitted.

F. D. McCOWN,  
Chief Division of Records and Accounts.

The DIRECTOR OF SANITATION,  
San Juan, P. R.

## APPENDIX II.

### REPORT OF THE SECRETARY OF PORTO RICO.

OFFICE OF THE SECRETARY,  
*San Juan, P. R., August 15, 1912.*

SIR: The office of the secretary of Porto Rico has performed an increased amount of work during the past year. Several of the administrative measures introduced during the last session of the legislative assembly originated and many were drafted in that office. The unusual amount of legislation enacted during the regular and special sessions of 1912 threw upon the secretary's office much additional work in the form of compilation, printing, and distribution of the laws. The 104 acts and resolutions enacted were printed in both the Spanish and English languages and made ready for distribution, as required by law, within 60 days after the close of the legislature, despite the fact that most of the laws were passed during the last week of the session.

A complete compilation of all the statutes of Porto Rico, including the laws of the session of 1911, with annotations and references, is now in print and an exhaustive index is nearly completed. When published these compilations will make all the existing legislation, both insular and Federal, in force with respect to Porto Rico, available for reference in convenient and authentic form.

The work of classifying and indexing the archives of the Spanish administration, the custody and care of which was imposed upon the Government of Porto Rico by the treaty of Paris, is progressing steadily. The original undertaking involved the handling of some 400,000 documents that had been thrown together in boxes and bundles. Up to date over 15,000 cases have been segregated, classified, and alphabetically indexed on cards in accordance with subjects in such manner as to make their location a matter of a few moments. All of the records so far classified pertain to the office of the Spanish governor general and contain, therefore, many documents of importance and value to the Government.

The importance of this work has, it is believed, never been fully appreciated. Aside from the fact that the terms of the treaty of Paris imposed upon the Government of Porto Rico the moral obligation to compile and care for these records, constituting as they do the authentic basis of the history of the government and development of Porto Rico, their value, which even now is inestimable, will continue so to increase with years that their protection is little less than a sacred duty of the present to the future generations. Up to recently these archives had been more or less neglected and abandoned to the ravages of time. A little over two years ago the secretary of Porto Rico succeeded in securing a small appropriation with which to begin their classification. The amount afforded him is far from adequate for the purpose, the appropriation being barely sufficient to cover the expense of storing the majority of the documents in a place secure from moisture and destructive insects and to begin the work of classification. The importance of the work warrants the establishment of a well-organized bureau of archives, with a personnel competent to push the work of collection and classification to rapid completion, so as to make every document accessible for reference, in order that we will not be obliged, as so often happens, to inform inquirers who are confident of the existence somewhere among these many thousands of papers of this or that document of value that it can not be located.

The Legislative Assembly of Porto Rico in 1911 appropriated \$5,000 to cover the expense of bringing back to this island a number of Porto Ricans who some time ago went to Mexico to establish a colony and owing to unsettled conditions in that country found themselves in destitute circumstances, whereupon they through friends appealed to the governor of Porto Rico for relief.

An employee of the office of the secretary of Porto Rico was sent to Mexico to arrange for their return. He found them in a rather wild and inaccessible section of the State of Tabasco, where they had attempted to colonize and develop a tract of land. The combination of circumstances, including the state of warfare then existing, had ren-

dered it impossible for them to accomplish their purpose. There were in this one colony about 150 persons; 58 of them took advantage of the opportunity to return to Porto Rico. The others, who saw a possibility of an improvement in their situation, decided to remain. Through the courtesy and valuable assistance of the State Department and the American consular representatives in Mexico and special rates and accommodations offered by steamship lines the expedition was successful. The total expense involved was \$2,467.47, leaving a balance from the \$5,000 allotted of \$2,532.53, which balance was later made available by the legislature for use in bringing other needy Porto Ricans back to their own country.

So great was the demand for the Register of Porto Rico of 1910 that the original edition of 2,000 copies was duplicated and 4,000 copies altogether were mailed to addresses in all parts of the United States and other places, care having been exercised to send them to those persons who it was believed would make the best use of them. Many requests have been received for more copies since the supply was exhausted and the volume out of print, and therefore a new edition, with current data brought up to the end of July 1, 1912, has just been completed and is now partially printed.

The work of examining corporation papers has been increased and made more complicated by the new corporation legislation authorizing the registration of social and charitable organizations and extending the privileges of the corporation law to domestic banks and insurance companies. During the year 37 domestic associations and 3 foreign associations were registered under the provisions of the act entitled "An act to incorporate associations not for pecuniary profit," approved March 9, 1911. Twelve foreign and 40 domestic corporations organized for pecuniary purposes were also registered. In accordance with the provisions of the political code documents concerning 50 United States patents and trade-marks and 44 domestic trade-marks were carefully examined and registered.

The following fees were collected for recording documents in the office of the secretary of Porto Rico, and deposited in the treasury:

Filing and registration fees upon corporation papers.....	\$3, 226. 10
Registration of domestic trade-marks.....	571. 05
Passports.....	141. 00
Miscellaneous, including authentication of signatures, certification of documents, and registration of United States patents and trade-marks.....	484. 40
Total.....	4, 422. 55

Receipts from the sales of law books and of the Official Gazette aggregated \$1,394.

The publication of the Official Gazette in Spanish and in English, bimonthly, has continued up to date. Indexes for each volume have recently been completed and printed, making the information concerning the various lines of governmental activity so accessible that for purposes of reference the publication is of much value and in great demand among Government officials, lawyers, and others interested in governmental affairs.

The relations of the office of the secretary of Porto Rico with the various municipal administrations during the past year have been most pleasant. Up to the time that the municipal law of 1906 was passed the office of the secretary of Porto Rico had a close supervision over municipal affairs, approving all ordinances and exercising a controlling influence in many municipal activities. The arrangement was, as might be expected, distasteful to members of these various local administrations, who felt that they should be allowed more freedom and independence of action. This they received in the municipal law of 1906, and, in view of previous experience and wishing to defend to the fullest extent their newly acquired independence, a strong inclination to resent any action on the part of the secretary's office or of the central government that appeared to be an attempt at intervention developed. It is pleasing to know, however, that this defensive and suspicious attitude has almost entirely disappeared. The municipal officials have apparently come to realize that a spirit of harmony and good understanding between central and local governments is conducive to the best results to all concerned. Confidence in the good will of the central government is rapidly gaining ground. It is a gratifying fact that an official responsible for the conduct of municipal affairs is now more inclined than ever before to consult with the secretary's office concerning proposed local ordinances and various other matters with reference to local administration of general interest, and in connection with which, realizing as they do that the secretary's office is in more or less direct touch with all municipal governments, they feel that they can secure through that office suggestions and information based upon the treatment of similar situations in other municipalities. It results in a beneficial uniformity in local ordinances and regulations and in the treatment of other matters and enables them to have an advantage of the experience of all that is most beneficial.

A good illustration of the benefits of this mutual consideration of matters of local interest and interchange of opinions is seen in the treatment of the fresh-meat business. No one matter had been the subject of so much difficulty and dissatisfaction. There was no uniformity in the treatment of the situation, or standard of prices, in the various municipalities. Often the residents were at the mercy of a local monopoly, or the municipal government itself, to relieve the situation, undertook the sale of meat at a financial loss to the local treasury. A comparison of notes and an exchange of opinions, through the office of the secretary of Porto Rico, resulted in the adoption of a uniform plan that appeared to solve the difficulty. It was by mutual consent tentatively placed into operation in various municipalities. The legislature of 1911 passed an act formally authorizing its trial for one year, and its success resulted in its being made permanent by the legislature of 1912. The treatment of this and many other matters of local interest by municipal authorities during recent years has satisfactorily demonstrated the fixed desire and ability on their part to direct the local governments in the conscientious and intelligent manner that the best interests of the members of the respective governments demand. In fact, the comparative freedom of these local governments from graft and from the control of private interests, so common in other countries, is commendable.

The transfer of certain buildings on the naval station in San Juan to the insular government placed the bureau of supplies, printing and transportation in possession of excellent, well lighted, and commodious quarters for its use. The acquisition of the new building was opportune, for the bureau had already outgrown the building it formerly occupied, and the change in location was completed in ample time to enable the bureau to meet an unanticipated increase in the volume of its transactions. The business of the bureau for the fiscal year ending June 30, 1911, was represented by a turnover of \$198,364.67, while its transactions during the fiscal year just ending were more than quadrupled and reached in value \$884,608.66. The value of supplies and materials purchased for the use of the various branches of the government was \$716,945.73. Of this, \$111,431.84 represents heavy machinery and material for the irrigation service, the purchase of which in the United States was compulsory. This left \$605,513.89 worth of business open for competition between local and mainland dealers, of which \$362,805.62 went to the merchants of the island. The value of the output of the printing plant reached \$54,047.07, as against \$39,048.05. The increased amount of work necessitated the purchase of an additional cylinder press as well as other small pieces of machinery. The government garage furnished 92,162 kilometers of automobile transportation, as against 79,822 kilometers during the previous year.

The work and accounts of the bureau of supplies, printing and transportation have been brought completely up to date during the past year. Its intelligent management has enabled it to pay all its obligations, to pay all operating expenses, to purchase new machinery and equipment, to cover the expense of moving to its present quarters, and finally, to reduce the surcharge on purchases from 10 to 7½ per cent.

Three times during the fiscal year the governor of Porto Rico has been out of the island, and, in accordance with the provisions of the organic act, during his absence the duties of that office were performed by the secretary of Porto Rico. The governor left August 2 and returned August 17, 1911; he left December 20, 1911, and returned January 4, 1912; and again left on May 1, 1912, returning August 23, 1912, each time having been required to go to Washington on official business of the island. On his last trip, however, he remained in the United States to enjoy the first leave of absence since his term of office began in the fall of 1909. During each absence of the Governor, and while a great deal of the time of the undersigned was demanded by the duties of the chief executive, the bulk of the responsibility for the current work of the office of the secretary of Porto Rico was assumed and carried on in a most satisfactory and able manner by Mr. Ramón Siaca Pacheco, assistant secretary of Porto Rico. It would be difficult for me adequately to express my appreciation of the loyalty and interest that has without exception been displayed by the employees of my department in the performance of their duties, and especially am I grateful to the members of other departments of the Government, the executive council, to municipal officials, as well as to many persons in private life who have given me the helpful benefit of their hearty cooperation, assistance, and advice at times when I have been called upon to assume the duties of the chief executive during the absence of the governor.

Statements setting forth the names and number of corporations registered in the office of the secretary of Porto Rico during the year are submitted herewith.

Respectfully submitted.

M. DREW CARREL,  
*Secretary of Porto Rico.*

**The GOVERNOR OF PORTO RICO.**  
*San Juan, P. R.*

STATEMENT NO. 1.—Foreign corporations registered in the office of the Secretary of Porto Rico during the fiscal year 1911-12.

Name.	Location.	Agent.	Address.	Principal purposes.	Paid-in capital.	Total authorized capital stock.
The Sherman Porto Rican Fruit Co.	Sherman, N. Y.	P. C. Adams.	Barcelona.	Fruits.	\$7,040.00	\$16,000.00
La Aldea Fruit Co.	Boonville, N. Y.	F. B. McLaughlin.	Manati.	do.	6,000.00	20,000.00
Blue & Gold Orchards.	Augusta, Me.	Lawrence V. Davis.	Vega Alta.	Fruits and vegetables.	9,400.00	25,000.00
Atlas Transfer Co.	Portland, Me.	Charles R. Manes.	San Juan.	Automobile transportation.	15,000.00	50,000.00
Falardo Warden & Co.	New York City.	Andres Guilleminard.	Mayaguez.	General merchandise.	3,000.00	100,000.00
The Hoffmann & Crumier Co.	Detroit, Mich.	E. S. Palno.	San Juan.	Machinery.	164,000.00	200,000.00
The Karl E. Swigert Clothing Co.	New York City.	Karl E. Swigert.	do.	Clothing, etc.	500.00	500.00
The Diamond Rubber Co. of New York.	do.	Shorman P. Bristol.	do.	Rubber.	10,000.00	10,000.00
The Porto Rico Motor Co.	Greenwich, Conn.	B. S. Palno.	do.	Motor vehicles.	6,000.00	150,000.00
The Palto Saco Fruit Co.	Boston, Mass.	B. E. Stevenson.	do.	Fruits.	20,000.00	300,000.00
The Plantation Co.	Wilmington, Del.	F. Solá.	Caguas.	Tobacco.	4,000.00	500,000.00
The P. J. Carlin Construction Co.	New York City.	Daniel F. Oaksmith.	San Juan.	General construction.	100,000.00	100,000.00
Total.					352,940.00	1,461,500.00

STATEMENT NO. 2.—Domestic corporations registered in the office of the Secretary of Porto Rico during the fiscal year 1911-12.

Name.	Location.	Principal purposes.	Paid-in capital.	Total authorized capital stock.
The Central Auto Co.	San Juan.	Automobile transportation.	\$19,000.00	\$40,000.00
Compañía Arrocera de la Carolina.	do.	Sugar.	26,000.00	1,000,000.00
Central Cordes.	Rincon.	do.	407,000.00	1,000,000.00
Jayuya Development Co.	Ponce.	do.	4,000.00	150,000.00
Guilataes Agricultural Co.	Lares.	Agricultural.	26,000.00	100,000.00
Finlay Wagonmouth & Lee (Inc.)	San Juan.	do.	300,000.00	500,000.00
Sociedad Artistico Teatral.	do.	Theatrical productions.	1,200.00	25,000.00
Vanilla Distilling Co.	do.	Distilling.	4,000.00	100,000.00
The Mayaguez Drug Co.	Mayaguez.	Drugs, etc.	40,000.00	150,000.00
The Caguas Ice Co.	Caguas.	Ice.	2,700.00	25,000.00
Glida Sugar Co.	San Juan.	Sugar.	25,000.00	350,000.00
The Porto Rico Mines Co.	do.	Mining.	3,000.00	250,000.00
Sociedad Teatro de Junco.	Junco.	Amusements.	1,000.00	5,000.00
Central Juana (Inc.)	Bayamon.	Sugar.	250,000.00	400,000.00
The Parthurnat Fruit Co.	do.	Fruits.	1,018.00	10,000.00
Sold a Hilo (Inc.)	Caguas.	Agricultural.	2,200.00	150,000.00
Overo Land Co.	Ponce.	Agricultural and industrial.	1,200.00	100,000.00

Romaguera Pasdillo Co.	do.	Mineral water.	20,000.00	100,000.00
West Indies Fruit Co. (Ltd.).	Cabo Rojo.	Fruits.	7,500.00	100,000.00
The Prescott & Mehrhof Co.	Salinas.	Agricultural.	2,000.00	150,000.00
The Juncos Mascabado Co.	Juncos.	Sugar.	1,200.00	25,000.00
Riera y Compañía (Inc.)	Rio Piedras.	Industrial.	25,000.00	25,000.00
Compañía Azucarera de Caguas.	San Juan.	Sugar.	5,000.00	500,000.00
The Bottling Material Co.	Ponce.	Dealers in bottles.	2,100.00	25,000.00
The Ponce Auto Transportation Co.	do.	Automobile transportation.	2,800.00	100,000.00
Compañía Azucarera de Rio Grande.	San Juan.	Sugar.	5,000.00	500,000.00
Frank L. Cole Co. (Inc.)	Mayaguez.	Lighting.	2,000.00	20,000.00
Compañía Eléctrica Industrial (Inc.)	San German.	Light and power.	7,100.00	15,000.00
The New Orleans and Porto Rico Rice Co.	San Juan.	Rice.	3,000.00	3,000.00
Insular Cigar Co.	Caguas.	Tobacco.	1,000.00	100,000.00
González Padin Co. (Inc.)	San Juan.	General merchandise.	202,500.00	500,000.00
Tropical Perfume Co.	Arroyo.	Perfumery.	1,000.00	20,000.00
The Western Mineral Water Co.	Mayaguez.	Mineral water.	3,500.00	100,000.00
Suburban Improvement Co.	San Juan.	Building construction.	13,500.00	100,000.00
Sociedad Agrícola Plamkronides.	Aguadilla.	Agricultural and mercantile.	3,500.00	50,000.00
The Combination Co.	Rio Piedras.	Transportation.	1,000.00	50,000.00
La Plata Tobacco Co.	Caguas.	Tobacco.	25,000.00	50,000.00
Garage Mayaguez (Inc.)	Mayaguez.	Transportation.	2,000.00	50,000.00
Morovis Cofees, Light & Power Co.	Barceloneta.	Coffee, light and power.	1,000.00	15,000.00
San Juan Towing & Lightage Co.	San Juan.	Transportation.	1,000.00	50,000.00
<b>Total.</b>			<b>1,450,013.00</b>	<b>6,903,000.00</b>



## APPENDIX III.

### REPORT OF THE TREASURER.

OFFICE OF THE TREASURER,

*San Juan, P. R., August 20, 1912.*

SIR: I have the honor to transmit the following report for the fiscal year ending June 30, 1912:

As my appointment was confirmed by the Senate on January 25, 1912, and, in consequence, as I have been in office only a few months of the period covered by this report, it will perhaps be easier this year than in following years to comply with the request to confine the report as closely as possible to essentials.

Before proceeding, however, with the financial statistics which must form the major part of this report, there are a few points which it seems advisable to touch upon.

First, a point which was touched upon very briefly in the last two annual reports of my immediate predecessor, which has been considered and discussed quite fully by the business people of the island and which was among the very first points brought to my attention as treasurer, namely, the policy of the department regarding the depositaries for insular funds.

Something over \$2,000,000 of the proceeds of the sale of the \$3,000,000 irrigation bonds was deposited by my predecessor in banks outside of Porto Rico apparently for the reason that the local banks were not able to furnish security which he considered as desirable as that which the New York banks offered. Since the time when these deposits were made there have been frequent requests from the business people of the island that these funds be deposited in Porto Rico, and these requests have been renewed so frequently that it appears advisable to outline the present policy of the Treasury Department regarding such deposits.

The Government funds are theoretically and for the most part actually contributions from the various individuals and organizations doing business under the laws of Porto Rico, and are made for the purpose of meeting the expenses necessary in carrying out those laws and for purposes of public improvements, and as such are a trust fund of the most sacred form and should not be considered in any degree an essential part of the financial life of the island. The first requirement made upon the treasurer as their custodian should be that they be deposited where the greatest degree of security may be obtained, and the second requirement should be that they be deposited where they will draw the best rate of interest. At the same time, if as great security can be assured for their deposit in Porto Rico as elsewhere and the same rate of interest is offered, then by all means the funds should be deposited here, but under only two conditions, it seems to me, should any degree of either of these requirements be sacrificed. Those conditions are, first, in the case of an actual shortage of circulating medium in the island. It is believed by some that this condition does actually exist. It seems, however, hardly possible that such can be the case, because of the direct connection, through the local branches of foreign banks, with the leading money centers of the United States and Canada. On account of these connections it appears almost certain that the failure of any proposed borrower to obtain his desired loan must be because his proposition does not seem sufficiently attractive to the bankers rather than because the necessary amount of currency is not available. The other condition which might justify such sacrifice in a small degree is when some financial crisis threatens the island, due to unfounded and unwarranted suspicions as to the general financial condition of the island, which suspicion might unquestionably be allayed, in a large degree at least, by increased local deposits of the Government funds. Under those circumstances it might be justifiable, for the treasurer, to accept as collateral a somewhat wider range of securities than is ordinarily accepted for the deposit of Government funds; but the deposit of additional money in the local banks under either of those conditions should not be interpreted as an admission of the correctness of any theory that the business interests of Porto Rico are being deprived of their rightful privileges by the deposit of Government funds outside of the island, but rather on the theory that a certain degree of additional risk of present Govern-



ment funds might be justified for the sake of insuring the continuance of future Government funds in an undiminished degree.

One of the leading industries of the island, the sugar industry, is suffering temporarily from money stringency, and on that account and in accordance with the policy outlined above the decision was reached to announce that the Government was disposed to increase its deposits in local banks, accepting as collateral approved local securities (an announcement to this effect was made through the local press on July 9, 1912) the intention being, on the part of the Government, to accept some of the local sugar securities as part of the collateral for the deposits. It might be added that up to this date, August 20, 1912, no application has been made by any of the local bankers for additional deposits, and the announcement on the part of the Government seems to have had some effect in reassuring the people, who have heretofore financed these industries, and it appears probable that no application for an increase of the Government funds to any great extent at least, will be made.

It is perhaps not necessary to discuss here at any length the causes which have led up to the present embarrassment to the sugar industries. It seems probable, however, that a careful analysis would reveal as the fundamental cause an extravagant use if not an actual abuse of credit. Whatever the causes, the present experience will doubtless prove ultimately beneficial to the sugar growers, and it is fortunate indeed that the other leading industries of the island appear to be in a thoroughly healthy condition.

#### NEW LEGISLATION AFFECTING THE TREASURY DEPARTMENT.

Aside from the new laws affecting directly the various bureaus of the Treasury Department, and which will be referred to in the reports of the respective bureaus, there were passed during the last session of the legislature two laws, or rather one law and one joint resolution, of considerable importance to The People of Porto Rico in general, both of which have to do considerably with this department.

I refer, first, to the new insurance law obliging all insurance companies, engaging or continuing in the insurance business in Porto Rico, to deposit with the Treasury Department a minimum of \$50,000 worth of securities, but providing that at least \$10,000 worth shall be—

"in local public utility, banking, industrial, or agricultural securities in Porto Rico, or bonds of The People of Porto Rico, or bonds for which the good faith of the people of Porto Rico is pledged, such securities to be acceptable to the treasurer of Porto Rico—

and in lieu of the balance the Executive Council may accept—

"a certificate issued under the hand and official seal of the auditor, comptroller, or general fiscal officer of any State of the United States that such company has on deposit in such State for the benefit of all the policy holders of the corporation in the United States and Porto Rico the lawful amount of securities required by such State, and of the actual cash value of not less than \$200,000."

This law, while not requiring the actual deposit of securities in a very large amount from any single company, does place in the Treasury Department deposits which will provide some additional security for the policy holders in the island, though it must be said, in fairness to the insurance companies, that past experience has not revealed any dangerous degree of inclination on the part of any insurance company to fail to meet its just obligations. This law provides also that all insurance companies doing an insurance business in Porto Rico whose total liabilities outstanding in the island exceed the value of the securities on deposit with the treasurer of Porto Rico shall, in case of contest with any of the insured, upon request of said claimant, make an additional deposit of money or marketable securities sufficient to cover such liability in full. It also makes various other provisions for the general protection of the policy holders in Porto Rico, among them that—

"The treasurer of Porto Rico may prescribe standard forms of policies and other insurance contracts and application blanks, and he shall have power to make all rules and regulations deemed necessary to properly carry out the provisions of this act, of section 354 of the political code, and such rules and regulations shall, when approved by the Executive Council, have the force of law."

This last provision has apparently given some uneasiness to the various insurance companies interested, and consequently a circular was issued from the Treasury Department on May 10, 1912, stating in effect that, realizing that the question of forms of policy and other insurance contracts are questions considerably more far-

reaching in their effect than might appear on the surface, no changes in the forms which have been adopted and which are now in use by regular legitimate insurance companies would be made, in accordance with the authority of this section of the law, without very careful consideration, and that any such changes would be made as far as possible in accordance with the desires and approval of the insurance companies. Ostensibly, as a result of this law, nine companies have discontinued operations in the island. It appears, however, in reality, that some of these companies were on the point of withdrawing before this law was passed, though its passage has undoubtedly resulted in the withdrawal of at least six or seven companies.

The joint resolution referred to authorizes the appointment of a commission to study and draft a banking law to be presented at the next session of the legislature. This is of vital importance, for Porto Rico is at present without a clearly defined banking law, and with the rapidly increasing financial interests of the island it is very essential that all of the banks of the island should have a clear understanding as to just what they may be expected to do and not to do. One of the duties of the treasurer is the examination of the banks of Porto Rico. This work is carried on in one or the other of two ways. Some of the smaller banks are examined by men delegated to the work from the treasurer's office, while the larger banks are as a rule examined by the local representatives of a New York firm of certified accountants, the examination being made at the expense of the banks, and a copy of the examiner's report furnished to this office. A new banking law, which will doubtless provide some additional safeguards to the finances of the island, will tend to facilitate the work of these examinations.

It is pleasing to be able to report that the year ending June 30, 1912, has established a new high record of prosperity for The People of Porto Rico as measured by the receipts of revenues in the insular treasury. The table which follows compares the total receipts from the various sources for the past six years. My predecessor, in his report of last year, referred to his previous "pessimistic predictions as to the amount of customs receipts," and it is probable that if he were writing this report he would be disposed to repeat those predictions, for it seems quite certain now that the figures for the year 1911-12 will not be equalled by those for the year 1912-13. The agitation of a reduction of the tariff on sugar has doubtless been partly responsible for a decided tendency towards conservatism among the sugar growers of the island, and this tendency will naturally make itself felt throughout all business. In addition, the mild attack of bubonic plague which has visited the island within the past few months will have a detrimental effect for a part of the year, at least, upon the business interests. In spite of these conditions, however, the ultimate effect of both will probably be beneficial than injurious—the former by establishing the habit of more conservative business methods, and the latter by establishing better sanitary conditions in the island—and I am of the opinion that the favorable record of last year will not remain unbroken for any great number of years.

## BUREAU OF ACCOUNTS.

TABLE 1.—*Actual net income of the insular Government, by main categories, July 1, 1906, to June 30, 1912.*

Item.	Fiscal years ending June 30—					
	1907	1908	1909	1910	1911	1912
Customs.....	\$1,128,555.61	\$979,990.43	\$803,326.35	\$879,352.43	\$1,065,998.95	\$1,180,592.90
Excise taxes.....	1,952,070.95	1,917,415.27	1,945,016.39	2,071,066.82	2,419,880.51	2,579,068.83
General property tax <sup>1</sup> .....	171,806.87	178,076.69	122,288.35	127,245.20	186,522.07	162,876.71
Inheritance tax.....	10,705.27	8,123.61	10,942.08	26,160.51	15,047.44	36,440.06
3 per cent tax on insurance premiums.....	13,272.61	14,555.11	15,218.11	17,834.53	24,911.45	16,627.60
Miscellaneous.....	251,531.97	273,380.24	285,265.49	337,088.43	331,054.92	401,910.90
Total.....	3,538,241.78	3,711,541.25	3,180,111.75	3,457,252.92	3,904,025.34	4,377,511.45
Repayments.....	210,285.21	158,257.54	250,887.69	280,686.95	434,878.42	1,058,083.47
Total, including repayments.....	3,748,526.99	3,554,798.79	3,430,999.44	3,737,939.87	4,338,903.76	5,435,594.92

<sup>1</sup> The insular Government retained 15 per cent of the general property tax in 1907 and 1908, and only 10 per cent in 1909, 1910, 1911, and 1912.

The receipts noted in the above table show a substantial increase over any previous fiscal year, from each source of revenue, except the receipts for "3 per cent tax on insurance premiums." The falling-off in these is due to the delay which occurred in closing the books for the fiscal year 1910-11. These books were not closed until the end of July, 1911, and in the meantime \$5,315.98, which was received on account of this tax and which, under ordinary circumstances, would have been included in the fiscal year 1911-12, was shown as a receipt for 1910-11. If this amount had been included in the present fiscal year, these receipts would show a corresponding increase over the previous fiscal years. The increase in "repayments" is due to the large amount of business done by the bureau of supplies, printing, and transportation, all payments for which are received by the treasurer and by him deposited to the credit of repayment receipts.

The receipts and disbursements of the insular government will be found in Exhibit No. 3, hereto attached. This statement is made up of monthly accounts current, of receipts and expenditures, as rendered to the auditor for the year. On account of the change of system instituted by the auditor at the beginning of the fiscal year 1911-12, it has been necessary to combine the disbursements from ordinary and from trust-fund receipts into one account. Formerly these disbursements were made by draft, drawn by the treasurer and taken up in his account as an actual disbursement when the draft was returned "paid."

In the case of settlement warrants where payments made to various persons were included in one warrant, oftentimes amounts would still be standing to the credit of the treasurer in the bank, but would show in his account as expended. Under the new system, the expenditures are made up of only those checks and vouchers actually paid by the bank.

The balances on hand at the end of each fiscal year from June 30, 1907, to June 30, 1912, are shown in the following table:

TABLE 2.—*Balances on hand, end of year, classified.*

Item.	Fiscal years ending June 30—					
	1907	1908	1909	1910	1911	1912
Cash balance available for expenditure.....	\$1,009,173.35	\$1,072,326.39	\$526,102.52	\$711,022.37	\$1,214,000.67	\$1,794,554.46
Due from municipalities and school boards.....	203,964.91	455,557.95	598,591.88	529,403.37	447,396.01	370,307.06
Trust funds.....	1,421,240.21	930,366.04	3,172,679.92	2,918,026.84	2,801,443.58	1,328,823.68
Total.....	2,634,378.47	2,458,250.38	4,296,374.32	4,158,451.58	4,462,830.26	3,493,680.90

The net cash balance available for expenditure June 30, 1912, shows a most satisfactory increase over that of June 30, 1911, the total balance of funds, however, is \$969,139.46 less than that of the previous fiscal year. This decrease is due largely to the heavy expenditures made from trust funds in constructing the irrigation system. The balance standing to the credit of "irrigation fund" June 30, 1911, was \$2,048,510.67, while on June 30, 1912, it was \$696,345.32, a difference of \$1,352,165.35. Another cause for heavy expenditures was the new "sanitation service," which, during the fiscal year 1911-12, expended \$554,484.95. This expenditure was offset by repayments to the account amounting to \$226,693.72. These repayments consist of \$34,490 turned in to this account by the department of health, charities and correction, \$189,639.88 contributed by municipalities, in accordance with the sanitation law, approved March 9, 1911, and \$2,563.84 from miscellaneous sources. The amount contributed to the sanitation service from the insular treasury, therefore, has been \$327,791.23. The revised sanitation law, approved March 14, 1912, lays a slightly heavier burden upon the individual municipalities. The law of 1911 provided—

"That each municipality shall cover into the insular treasury 12 per cent of its revenues during each fiscal year, so as to meet with said amount the expenses incurred by the local sanitary service performed under this act regardless of the aggregate of said expenses."

and this was interpreted to mean that each municipality should pay 12 per cent of its receipts from all local taxes and the same proportion of its receipts from property taxes, after the 8 per cent appropriated for roads and the 25 per cent appropriated for schools had been deducted. The law of 1912 provides for "12 per cent of the gross

revenues of each municipality," and deductions, therefore, will be made from July 1, 1912, in accordance with this law, from the portions set apart for roads and schools, as well as from the other current revenues of the municipality.

TABLE 3.—*Public indebtedness of all kinds, insular Government, municipalities, and school boards, June 30, 1912.*

Item.	Insular Government.	Special Irrigation district.	Municipalities.	School boards.	Total.
Bonded indebtedness.....	\$1,175,000.00	\$3,000,000.00	\$328,000.00	.....	\$4,503,000.00
Less cash on hand in sinking and redemption funds.....	313,081.54	.....	84,615.54	.....	397,697.08
Net bonded indebtedness.....	861,918.46	3,000,000.00	243,384.46	.....	4,105,302.92
Floating and miscellaneous indebtedness.....	.....	.....	84,457.48	.....	84,457.48
Indebtedness to insular Government and trust funds.....	.....	.....	265,140.94	\$125,007.68	410,148.62
Total.....	861,918.46	3,000,000.00	562,982.88	125,007.68	4,540,908.02
Less amount due insular Government and trust funds by local governments.....	410,148.62	.....	.....	.....	410,148.62
Cash on hand available for expenditures.....	451,769.84	3,000,000.00	562,982.88	125,007.68	4,139,760.40
	1,794,554.46	.....	429,071.06	269,881.17	2,493,506.69

The bonded indebtedness of the insular Government was reduced \$50,000 by the redemption of the fifth series of the gold-bond issue of 1907. The municipal bonded indebtedness was also reduced from \$1,100,000 on June 30, 1911, to \$328,000 on June 30, 1912. The municipal indebtedness to the insular Government has been reduced \$43,023.72 during the past fiscal year, and that of the school boards \$33,473.93. These figures are analyzed more fully in the report of the bureau of municipal finance.

Regarding the bonded indebtedness of the insular Government, I will quote in substance two paragraphs from my predecessor's report of last year:

"The tax of one-tenth of 1 per cent now being imposed to liquidate the road loan will not only give a sufficient sum to pay off the \$750,000, as shown in the table, but also to pay off the bond issue of \$425,000, authorized for the same purpose, and leave a large surplus besides.

"A sinking fund for the redemption of the \$3,000,000 bond issue will be derived from a special tax levied in the district that is to be benefited by the irrigation system, which tax will be levied when the system is completed. The legislative session of 1911 empowered the treasurer of Porto Rico to issue additional bonds of The People of Porto Rico when needed, to an amount not exceeding \$1,000,000, to complete the system."

and on account of the small balance available, such an issue will soon be made.

TABLE 4.—*Custody of funds for the fiscal year ending June 30, 1912.*

American Colonial Bank of Porto Rico, San Juan, P. R.....	\$558,383.14
Banco de Puerto Rico, San Juan, P. R.....	100,000.00
Banco Territorial y Agrícola de Puerto Rico, San Juan, P. R.....	15,000.00
Bank of Nova Scotia, San Juan, P. R.....	250,000.00
Credito y Ahorro Ponceño, Ponce, P. R.....	50,000.00
The Royal Bank of Canada, San Juan, P. R.....	750,000.00
J. & W. Seligman & Co., New York, N. Y.....	1,400,000.00
Total.....	3,123,383.14

Table 4 shows the amount of cash in the hands of the different depositories June 30, 1912. As heretofore reported, these deposits are protected by surety bonds and high-grade securities held as collateral based on letter contracts approved by the law officer of the bureau of insular affairs and the attorney general of Porto Rico. Regarding collateral securities for these deposits, the following rules are still observed: United States Government and Government of Porto Rico bonds are accepted at par; New

York City bonds are accepted at 15 per cent margin in excess of amount of cash on deposit; and bonds which are a legal investment for New York and Massachusetts savings banks are accepted at 20 per cent margin. The deposit with the "Banco Territorial y Agrícola" is protected by mortgage bonds of that bank in double the amount of its deposit. These bonds sell in the open market at a little above par. No industrial securities have so far been accepted as collateral for deposits, and all deposits are subject to call by sight draft. All of the insular depositaries are now paying interest at the rate of 3 per cent, except the American Colonial Bank, which pays at the rate of 2 per cent. This is the same as these depositaries have paid heretofore, except that the rate has been raised from  $2\frac{1}{2}$  to 3 per cent on a part of the deposit with the Royal Bank of Canada. The American Colonial Bank continues as the only depositary on the island which carries an open account with the Government, and for this reason it pays the lower rate of interest. All accounts owed in the island are paid through this bank, and all insular receipts are paid into it, for which purpose it has a number of agencies located in convenient parts of the island.

TABLE 5.—Amounts collected and distributed by the treasurer on account of all taxes imposed on property, fiscal years 1911 and 1912, showing application of each tax and rate of assessment per \$100.

	Rate of assessment per \$100.	Fiscal year.	
		1911	1912
Grand total.....	<i>Cen.</i> 110 to 160	\$1,776,614.97	\$2,087,656.90
On account of insular Government.....	20	269,488.22	323,707.96
For collection charges (deducting refunds).....	10	135,105.71	162,590.86
For redemption of road bonds <sup>1</sup> .....	10	134,382.51	161,117.09
On account of municipalities.....	67.5 to 107.5	1,073,519.46	1,240,438.82
For general purposes.....	60.3	824,004.04	960,381.23
For construction and repair of roads.....	7.2	91,363.55	109,230.87
For redemption of municipal bonds <sup>1</sup> .....	20 to 40	158,151.87	150,816.42
On account of school boards.....	27.5 to 32.5	433,607.29	523,519.40
Regular school fund.....	22.5	\$93,364.25	\$63,122.04
Special school tax <sup>1</sup> .....	5 to 10	180,243.04	160,397.36

<sup>1</sup> Items marked thus are special or temporary taxes; all others are general taxes.

The rate of "school tax" for the fiscal year 1911-12 was one-tenth of 1 per cent in 67 municipalities, and five one-hundredths of 1 per cent in Las Marias.

The rate of "bond redemption tax" was fifty one-hundredths of 1 per cent in Mayaguez in 1910-11, and forty one hundredths of 1 per cent in 1911-12; forty one-hundredths of 1 per cent in San Juan in 1910-11, and thirty one-hundredths of 1 per cent in 1911-12; and twenty one-hundredths of 1 per cent in Ponce and Arecibo.

The total tax rate for 1911-12 was \$1.60 in Mayaguez; \$1.60 in San Juan; \$1.40 in Ponce and Arecibo; \$1.20 in 63 municipalities; and \$1.15 in the remaining one.

All property within a municipal district, whether real or personal, is assessed on actual valuation, not valuation at forced sale and not cost, and pays the same rate of tax. No distinction is made between urban and rural real estate or between personal and real property, all being assessed at a uniform rate.

In addition to the foregoing taxes, all of which are assessed and collected by the insular Government, two other kinds of taxes are levied by the municipal councils within limits prescribed by a general insular law and collected by municipal treasurers. These are the industrial and commercial license tax and the tax on the sale of meats. Twelve per cent of this income is paid into the insular treasury to help defray the expense of the sanitation service and the balance is applied to local purposes.

The following table is a complete statement of the income received by all branches of the Government in Porto Rico during the fiscal years 1910-11 and 1911-12:

TABLE 6.—*Net income of the insular Government, municipalities, and school boards, by main categories, fiscal years 1911 and 1912.*

	Fiscal year ending June 30.	
	1911	1912
Grand total.....	\$6,364,552.30	\$7,708,829.91
Insular Government.....	4,428,903.76	5,435,544.92
Customs.....	1,065,998.95	1,180,592.90
Excise taxes.....	2,419,880.51	2,579,083.38
Property taxes.....	136,522.07	162,876.71
Inheritance tax.....	15,047.44	36,440.06
3 per cent tax on insurance premiums.....	24,911.45	16,627.50
Miscellaneous.....	331,664.92	401,910.90
Repayments.....	434,878.42	1,058,033.47
Municipalities.....	1,502,041.25	1,749,765.60
Property taxes.....	915,367.59	1,069,337.83
Tax on slaughter and sale of meat.....	131,699.70	125,162.26
Business licenses.....	195,317.72	224,127.04
Fines.....	20,894.11	24,520.73
Other.....	238,762.13	286,617.73
School boards, property taxes.....	423,607.29	522,519.40

## BUREAU OF PROPERTY TAXES.

The treasurer's report of a year ago contained in a concise but complete form a brief history of the thoroughly chaotic conditions of tax assessments throughout the island at the time of the American occupation and the obstacles to be overcome in improving those conditions, and the progress which had been made up to that time in accomplishing that result.

The report showed the different stages of development which finally led to the appointment of 15 assessors, and the undertaking by that force, at the beginning of the fiscal year 1910-11, of a complete reassessment of the entire taxable property of the island.

As shown by that report, the reassessment of a considerable portion of the real property had been completed at the end of last year, and the balance of the real property has now all been reassessed. During the year closed, the revision of the following municipalities was completed: Aibonito, Anasco, Barceloneta, Barros, Cabo Rojo, Carolina, Cayey, Ciales, Cidra, Coamo, Comerio, Guayanilla, Lares, Maricao, San Sebastian, Yauco, Ponce, Rio Piedras, Lajas, Mayaguez, Isabela, and Las Marias, resulting in 33,000 new assessments and the completion of new statistics for all of the real property and improvements in the island. These statistics are shown as Exhibits Nos. 12, 13, 14, and 15 herein. This feature of the work, therefore, will require practically no attention during the coming fiscal year beyond the making of such transfers as are required by law, and it will not be a difficult matter hereafter to keep the assessment of the real property of the island as thoroughly up to date as is possible with the present lack of a thorough survey. My predecessor also pointed out the great necessity of complete cadastral and soil surveys of the entire island, and the few cases which he cited of the absolute impossibility which exists in many cases of determining exact boundaries of real estate are sufficient evidence of the need for these surveys. It is my intention to continue the effort made by my two immediate predecessors to accomplish this work. The attention of the bureau, however, for the coming year will be fully occupied in securing a more thorough enrollment on the tax books of the personal property of the island. Plans have been perfected which, if not disturbed by unforeseen circumstances, will result in a thorough revision of this class of property, and it seems probable that a very material increase in valuation will result.

In Exhibit No. 13 in previous reports the total valuation of personal property, by municipalities and classes, has been shown. This exhibit will be changed in this report for the reason that the data now at hand is so insufficient as to render such a report quite inaccurate, and consequently of no real value. It is hoped that next year a revised report of this nature may be included which will be accurate and reliable.

The collection of taxes during the past fiscal year has been attended by remarkable success, as shown by the fact that of the 69 collection districts in existence on June 30, 1912, two of which were the result of legislative enactments effective during this year, 33 absolutely liquidated the taxes charged against them and 20 liquidated all collectible taxes, having only a balance in arrears comprised in such receipts as are absolutely uncollectible. There are but 16 towns in arrears for collectible amounts, aggregating \$1,465.82, and, as shown further, by reference to Table 7, there was outstanding on June 30, 1912, but six one-hundredths of 1 per cent, as against thirteen one-hundredths of 1 per cent the previous year.

TABLE 7.—General property tax of 1 per cent remaining.

	1908	1909	1910	1911	1912
1902 .....	\$6,892.70	\$5,715.30	\$2,617.50	\$733.06	\$651.04
1903 .....	6,531.32	4,784.56	1,549.53	309.21	286.06
1904 .....	10,042.79	7,098.77	2,998.53	1,469.18	1,317.61
1905 .....	7,036.78	4,776.94	2,546.64	1,264.51	1,129.55
1906 .....	8,396.18	4,806.05	2,010.30	964.29	327.20
1907 .....	11,517.73	5,351.06	2,239.34	1,075.34	92.24
1908 .....	36,907.51	6,473.85	2,865.55	1,071.22	71.08
1909 .....		22,178.99	3,104.77	1,496.63	66.80
1910 .....			7,671.91	1,742.79	224.38
1911 .....				4,996.83	1,062.68
1912 .....					2,458.48
Total .....	87,325.01	61,185.52	37,604.07	15,183.06	7,693.11
Percentage .....	1.3	0.82	0.3	0.13	0.06
Final year résumé:					
Amount .....	\$36,907.51	\$22,178.99	\$7,671.91	\$4,996.83	\$2,458.48
Percentage .....	3.9	1.96	0.8	0.36	0.15

In the foregoing table, under the heading "Final year's résumé," a separate report on the current year is made, and the result shown is equally as encouraging as that produced in the general result. A more minute analysis of the taxes outstanding, by municipalities, will be found in Exhibit 16.

The amount of \$7,693.11 is the total balance in arrears of all the taxes levied since the enactment of the present law in 1902 upon all property other than that owned by corporations. Never before has the balance on this account been so small. It is divided as follows:

In litigation and extensions .....	\$514.65
Uncollectible, levied in error or covering personal property of deceased or bankrupt persons .....	3,417.91
Subject to reclamation by tax payers .....	2,054.79
Supplementary or additional tax receipts for back years, recently issued, time for collection not having yet expired .....	239.94
Actually collectible, arrears .....	1,465.82

Total .....

7,693.11

From the above table it will be seen that the sum of \$3,417.91 is not collectible, and the reason therefor, and the legislature will be requested to cancel it. The \$1,465.82 above quoted is in the same class as the \$4,215.35 reported last year, concerning which, at that time, the following remark was made:

"Much of it could have been secured by now, but inasmuch as it is all comprised in special cases, covering coffee properties, where returns for coffee sold are not received until the fall, and where excessive pressure would have worked great hardship, and the Government will suffer little loss by a slight delay, I have considered it wise to adopt a more lenient policy in regard to these delinquent taxes and have extended the time of collection, as empowered by law."

The uncollected corporation taxes amount to \$3,429.28, of which but \$79.68 is actually arrears, as the balance is in litigation. This is fully detailed in Exhibit No. 16A.

#### BOARD OF REVIEW AND EQUALIZATION.

This board consisted this year of the following members: The treasurer of Porto Rico, as chairman; the secretary of Porto Rico, the commissioner of the interior, and Messrs. Guillermo Riefkohland and Rafael Castro Gonzalez, during the first session, with Mr. Carlos

Toro appointed to fill the vacancy caused by Mr. Riefkohl's resignation, on account of his necessity for leaving the island, during the second session. It has been gratifying to see the careful investigation and consideration which has been given to each case presented to this board, whether the revision requested by the taxpayer involved a saving of 12 cents per annum, as happened in one case, or several thousand dollars per annum, as happened in some cases. Of the 33,000 cases assessed by the bureau of property taxes, but 651 were appealed from by the taxpayers, and 38 by the department. This low percentage of cases appealed speaks well for the efficiency and coordination with which assessments are made.

The amount of money involved in the 689 cases acted upon by the board was \$23,451,000. Of this amount a total reduction of \$4,194,000 was made by the board, of which approximately \$1,000,000 was upon direct appeal of the taxpayers, and the remainder, something over \$3,000,000, upon the presentation to the board, by the Treasury Department, of approximately \$4,000,000, which represented corporation liquidations, erroneous returns in tax schedules, and the question of establishing a principle regarding the assessment of moneys employed in leaseholds, loans, and other intangible property not heretofore reached by this department. The board, after careful consideration, determined to leave in abeyance the question of the new policy involved pending the accumulation of additional information.

#### BUREAU OF INTERNAL REVENUE.

The receipts of the bureau of internal revenue for the past fiscal year amounted to \$2,579,071.78, and exceeded by \$159,191.18 those of the preceding year, which were considered extraordinary, and quite correctly so. The cost of collection was 2.9 per cent. This good record appears to be due among other things to the marked increase in the consumption of cigars and wine, but especially in that of cigarettes and beer, being 10.5, 36.4, 15.8, and 50.02 per cent, respectively, and to the advance in the rates imposed upon some objects of taxation. The amount collected on this latter account was approximately \$85,000. Business conditions, which no doubt were excellent during the year, appear to be here truly reflected, and it may be confidently asserted that revenue receipts, in the absence of influence due to other special circumstances, are their faithful index. Symptoms of a disquieting nature with respect to business, heretofore referred to in this report, could be perceived in June, and in this connection I feel obliged to remark that in view of the rather unfavorable crop reports from the south side of the island, due to the continued drought and to the greater conservatism which will doubtless be exercised in business, we may well anticipate a contraction in the internal-revenue receipts in the next fiscal year, as compared with the amount collected during the year just ended.

During the past fiscal year there have been withdrawn for consumption in Porto Rico 3,614,246 liters of alcohol, as against 4,169,930 in 1910-11. This decrease was predicted by my predecessor in his report for last year and was due to the legislative action, which increased by 2 cents per liter the rate of tax imposed upon alcohol, effective July 1, 1911, thereby stimulating beyond actual need the withdrawals of alcohol during April, May, and June, 1911, as the following comparative table aptly shows:

#### *Alcohol withdrawn for consumption.*

	1909	1910	1911	1912
	<i>Liters.</i>	<i>Liters.</i>	<i>Liters.</i>	<i>Liters.</i>
April.....	285,079	300,888	348,789	349,906
May.....	324,281	301,590	397,492	350,112
June.....	272,045	297,042	724,518	278,060
Total.....	881,405	899,520	1,470,799	978,078

The receipts from this source, which, under ordinary circumstances, would have been covered into the insular treasury during the past year, came into the treasury, under the incentive of saving 2 cents in the cost of each liter of alcohol withdrawn before July 1, 1911, in the three months of 1911, above given. However, disregarding the difference between the quantity of alcohol tax paid this year and that withdrawn during the previous fiscal year, there nevertheless appears to be a steady growth in the consumption of this liquor on the island, as the following shows:



## Alcohol withdrawn for consumption in—

Liters.

1908-9.....	3,353,069
1909-10.....	3,485,280
1910-11.....	4,169,930
1911-12.....	3,614,246

There were also declared for exportation and exported 207,883 liters of alcohol, as against 195,875 in 1910-11, of which, previous to exportation, 175,480 were elaborated into bay rum, producing 315,143 liters of that compound. The denatured-alcohol industry, though as yet comparatively new, gives every evidence of a steady growth, all of which indicates a progressively increasing demand for alcohol in Porto Rico each year. The quantity of alcohol released for denaturing purposes, free of tax, during the last three fiscal years was as follows:

Liters.

1909-10.....	91,005
1910-11.....	105,770
1911-12.....	117,100

During the year 4 distilleries went out of business and 3 new ones were licensed, leaving in operation, at the end of the fiscal year, 13 distilleries, as against 14 in 1910-11. The tables given below furnish an excellent illustration of the very gratifying increase in the receipts on account of cigars, cigarettes, wines, and beers consumed in Porto Rico during the year, and show that the island has consumed 10,618,120 cigars and 72,720,955 cigarettes more than in 1910-11, and that 1,225,513 liters more of wine and beer were tax paid during the past year than in 1910-11. The exportation of cigars and cigarettes has not shown any increase, but has remained practically stationary, this undoubtedly being due to the unusual demands of local trade because of the increased domestic consumption of these articles.

*Amount of taxes received and increased receipts on account of cigars and cigarettes for the three years ending June 30, 1912.*

Year.	Cigars.		Cigarettes.	
	Tax collected.	Increase in tax over previous year.	Tax collected.	Increase in tax over previous year.
1909-10.....	\$185,400.33	\$15,533.80	\$433,228.75	\$31,150.63
1910-11.....	202,128.99	16,728.66	505,681.06	72,452.30
1911-12.....	223,368.23	21,236.24	585,675.14	79,994.09

*Cigars and cigarettes consumed in Porto Rico.*

Year.	Cigars.	Cigarettes
1909-10.....	92,700,160	393,844,300
1910-11.....	101,064,495	459,710,045
1911-12.....	111,682,615	532,431,000

*Wines and beers tax paid in Porto Rico.*

Year.	Quantity.	Tax collected.	Increase in tax over previous year.
	Liters.		
1909-10.....	2,421,565	\$145,293.92	\$23,851.91
1910-11.....	2,747,182	164,830.92	19,547.00
1911-12.....	3,972,695	238,361.71	73,530.79

*Exportation of cigars and cigarettes.*

Year.	Cigars exported.	Cigarettes exported.
1908-10.....	151,734,438	13,142,000
1910-11.....	174,743,098	11,780,000
1911-12.....	169,766,656	11,293,350

That this year has been one of extraordinary business expansion is also well shown by the increased number of licenses issued by this department for the manufacture and sale of taxable articles. A comparison of the number of such licenses issued during the three years past is as follows:

Year.	Licenses in force.	Amount collected.
1908-10.....	17,718	\$221,223.00
1910-11.....	19,566	247,395.70
1911-12.....	22,015	270,045.45

*Classification of licenses issued.*

Year.	Manufacturers.		Wholesale dealers.		Retail dealers.		Total.	
	Number.	Amount collected.	Number.	Amount collected.	Number.	Amount collected.	Number.	Tax re- ceived.
1908-10.....	632	\$19,524.00	672	\$42,487.00	16,414	\$159,212.00	17,718	\$221,223.00
1910-11.....	680	20,389.20	722	47,677.00	18,164	179,329.50	19,566	247,395.70
1911-12.....	712	28,225.70	853	52,189.00	20,450	189,630.75	22,015	270,061.80

Of the 2,449 licenses issued in excess of the number in force last year only about 600 were due to the statutory enactment creating them, which became effective July 1, 1911, the remainder being due to the expansion of the business.

In connection with the violations of the internal-revenue law, I am pleased to give further expression to the fact, duly observed in the last year's report of this department, that the number of deliberate and serious infractions of the law is decreasing markedly, there being 59.34 per cent less cases presented for prosecution than in 1911. That this is not due to lack of activity in searching out such cases is shown by the increase in the number of minor violations of the law detected. However, the average penalty imposed during this year appears to be smaller than in 1910-11.

*Excise-tax cases.*

Year.	Administrative.		Prosecution.		
	Number imposed.	Amount of fine.	Number.	Convic- tions.	Per cent of con- victions.
1908-10.....	1,207	\$4,053.00	104	75	75
1910-11.....	1,271	4,408.65	91	75	52
1911-12.....	1,333	4,330.00	51	44	86

The amendments to the internal-revenue law, passed by the legislature in 1911, and explained in detail in the report of the treasurer for last year, have now been in operation the entire year and have worked very satisfactory. In addition, as stated above, they have been the means of increasing the internal-revenue receipts by approximately \$85,000. The legislature just adjourned has further amended the internal-revenue law in the following particular:

The tax of 6 cents per liter, now levied upon beer, whether imported or of domestic manufacture, and regardless of the kind of package in which contained, will be

reduced after July 1, 1912, to 3 cents per liter upon beer, produced in Porto Rico or brought or imported thereinto, as is contained in barrels or other wooden or metal packages of not less than 15 liters. This beer, however, upon which the tax of 3 cents per liter has been paid, if bottled, will be further liable to an additional tax of 3 cents per liter; the additional tax being payable at the time of bottling. The old rate of 6 cents per liter, therefore, will be retained only upon beer imported into Porto Rico or of domestic manufacture, and withdrawn for consumption, in bottles.

To supervise the bottling of beer provision has been made whereby all persons who shall bottle beer in Porto Rico are required to keep a book showing the quantity received in and dispatched from any bottling establishment, the quantity bottled, the kind and number of packages in which received and dispatched, and such other information as the treasurer shall prescribe.

Provision was also made authorizing the treasurer to refund, under such regulations as he may prescribe, such taxes as have been paid upon samples of articles subject thereto, brought into Porto Rico for use in soliciting business, if such samples are exported within six months from the date of their importation. This is a very desirable provision and I am glad to see that the legislature has recognized the justice due those whose visit to Porto Rico in solicitation of business is only for a short period and who take with them from the island the samples they brought here for trade purposes.

A tax of 15 cents, payable in internal-revenue stamps, has been imposed for each oath, necessary to bills of lading and manufacturers' bonds, administered by internal-revenue agents and collectors.

A tax of 25 cents, payable in internal-revenue stamps, has been imposed upon affidavits and declarations of authenticity, executed before a notary public, justice of the peace, or other officer; exception being made of those executed before internal revenue officers, which relate to the assessment of property or violations of the internal-revenue laws, and those before judicial officers referring to matters in judicial proceedings before them. This amendment fixes a uniform rate of tax on all affidavits and declarations, regardless of the officer before whom they are executed, and is, therefore, desirable on account of this feature.

The date originally fixed for the act entitled "An act to protect Porto Rican cigars from fraudulent misrepresentation, by providing for adequate expert inspection, and the use of guarantee stamps covering the origin of tobacco used in the manufacture of such cigars intended for exportation," to go into effect January 1, 1913, has been changed to January, 1914; the intention being further to extend the time for the tobacco growers to prepare themselves to meet the demands that are expected to be made upon them for high-grade native tobacco as a result of this law.

Several other bills were introduced at the session of the legislature this year, designed to amend the revenue law, but failed of passage. Among these a bill repealing the tax of 5 per cent ad valorem upon bay rum and alcoholado, and imposing instead a tax of 28 cents per liter upon the alcohol used in their manufacture. I am heartily in accord with the effort of my predecessor to secure the imposition of an adequate tax upon the alcohol used in the manufacture of bay rum and alcoholado, as is done in other countries of greater sources of taxation than Porto Rico, and to relieve the department of the heavy supervision that this industry requires and for which the government does not receive a proportionate return.

The law at present in force levies a tax of 28 cents per liter upon extracts, whether medicinal or otherwise, where the alcohol which they may contain forms the chief component. This works hardship in those cases in which the percentage of alcohol is comparatively small. The law should, therefore, be so amended as to permit the levy upon the percentage of spirits, rather than upon the entire quantity of the article. In the same manner should a change be made in the provision relating to the imposition of licenses, and the rates prescribed, which should be made to yield a more adequate revenue than at present.

#### BUREAU OF THE PAYMASTER.

The bureau of the paymaster issues all drafts drawn by the treasurer in payment of claims against the insular treasury from the public funds in his charge. As announced in the report of last year, a new system for handling the work of this department became effective at the beginning of the present year. According to this system, the claims paid are previously examined and certified for payment by the auditor, on a warrant issued to the treasurer, bearing the approval and countersignature of the governor, as required by law. This warrant, accompanied by detailed lists of the claims to be paid, as well as the drafts upon which the payments are made, is examined in the paymaster's office, and, after being entered in appropriate records, he drafts are signed by the paymaster and delivered to the individual claimants.

For convenience in handling, two kinds of drafts are used—one the ordinary check form for the payment of regular monthly accounts, such as salaries, rent of quarters for stations of the insular police, additional compensation allowed various court officials in lieu of transportation expenses, and such others as are a fixed monthly charge. The other more closely resembles the voucher check in use by some of the larger corporations in the United States, and aims to give a brief account of the claim covered by the amount paid, as well as a statement of the appropriation from which payment is made. Canceled drafts are returned daily by the depository upon which drawn, and are examined as to correctness of indorsements and notation made of the date of payment opposite the original entry in the record of payments. The depository is then given credit for the amount of canceled drafts returned and this amount is in turn credited to the treasurer by the auditor on his general account of expenditures.

During the year ending June 30, 1912, there were issued 56,594 checks and 32,483 voucher drafts, which, together with 4,237 checks issued on a prior account during the first two months of the fiscal year, made a total of 93,314 payments, totaling \$8,773,653.45—by far the largest volume of business transacted by this bureau since its organization. The work was carried on by a smaller force of clerks than last year, two having been transferred from this bureau to other departments of the Government, and the vacancies thus created have not been filled. The total expense of the office was correspondingly reduced and amounted to less than one-tenth of 1 per cent of the total of disbursements. The enviable record established by the bureau in the past has been maintained, and during the year no discrepancies in the accounts have occurred either with the depository or with the auditor.

#### BUREAU OF MUNICIPAL FINANCE.

The report of last year dealt at some length with the problem confronting the Treasury Department of making such advances or loans to the municipalities of the island as might be deemed advisable from time to time without thereby incurring the risk of embarrassment to the insular Government through having too large a proportion of its funds in such condition as might prevent their being quickly obtainable in case of necessity. This problem was met by a resolution approved by the Executive Council March 30, 1911, the first paragraph of which provided—

“That the contracts to be used as evidences of indebtedness in all future loans to municipalities and school boards and in the refunding of existing loans, as hereinafter provided, shall be in the form of bonds of the borrowing municipality or school board, bearing interest at such rate, not to exceed 5 per cent, as the Executive Council shall find practicable in the individual cases.”

and in accordance with this resolution, during the fiscal year ordinances have been approved granting loans, of rather large proportions in some cases, to several of the municipalities, for refunding outstanding indebtedness and making public improvements. It was expected that some issues of municipal bonds would have been made before the close of the year, but, on account of a considerable delay in receiving the bond forms and one or two other unexpected circumstances, no municipal bonds were actually issued during the year. The ordinances, however, have in each case provided for a temporary advance of funds to the municipalities, and consequently no serious delay in the completion of the contemplated improvements has been caused. It will be necessary, as early as possible in the coming fiscal year, to issue bonds covering loans, as described above, for the municipalities of Ponce, \$390,000; Yauco, \$90,000; and Humacao, \$60,000; and applications for loans are now in the hands of the Executive Council which will probably result in still further sales of municipal bonds before the end of the year.

The bonds of Arecibo, Mayaguez, Ponce, and San Juan, issued under the act of January 31, 1901, were redeemable January 1, 1912, or on the 1st day of any January or July thereafter until due. The following statement shows the bonds redeemed by each of these municipalities, and their bonded indebtedness on June 30, 1912:

	Bonds issued.	Bonds redeemed Jan. 1, 1912.	Balance due June 30, 1912.
Arecibo.....	\$100,000	\$63,000	\$37,000
Mayaguez.....	200,000	170,000	30,000
Ponce.....	200,000	136,000	64,000
San Juan.....	600,000	408,000	197,000
Total.....	1,100,000	777,000	323,000

The financial condition and the various activities of the 68 municipalities into which the island is to-day divided are shown in Exhibits Nos. 16 to 23.

The total gross receipts of the municipalities, as shown in Exhibit No. 18, amounted to \$1,946,605.81, as against \$1,697,627.29 during the previous year, or an increase of \$248,978.52. This increase was from the following sources:

Property tax.....	\$174, 244. 51
Public-service enterprises.....	28, 438. 58
On account of debt.....	17, 382. 42
Tax on slaughterhouses and licenses and permits.....	22, 271. 88
Other local receipts.....	23, 043. 64
Gross increase.....	265, 381. 03
Less decrease in bond redemption and sinking fund.....	16, 402. 51
Net increase.....	248, 978. 52

The total gross expenditures of the municipalities, as shown in Exhibit No. 19, amounted to \$2,478,244.91, as against \$1,508,229.46 for the previous year, an increase of \$970,015.45, due largely to the payment of \$772,000 by four of the towns during the month of January, 1912, for the redemption of 772 of the 1,100 bonds issued in 1902. The difference between these two sums—\$198,015.45—consists of the following increases over last year:

General Government.....	\$31, 022. 48
Highways.....	43, 414. 04
Charities and corrections.....	52, 763. 13
Public-service enterprises.....	20, 345. 76
Health conservation and sanitation.....	50, 510. 21
Protection to life and property.....	738. 61
Recreation.....	284. 48
On account of debt.....	2, 383. 07
Miscellaneous.....	12, 273. 38
Total increase.....	213, 735. 16
Less the decreases in the following items:	
Education.....	\$195. 88
Interest.....	13, 940. 35
Outlays.....	1, 583. 48
	15, 719. 71

Net increase.....	198, 015. 45
Redemption of 772 bonds.....	772, 000. 00
Total increase.....	970, 015. 45

The increase in the expenditure for "General Government" was caused largely by the amounts spent in repairs to municipal buildings and by an increase in the number and amount of the salaries of the employees in most of the municipalities whose budgets would legally permit of such an increase on account of an increase in receipts. A constant effort is made on the part of the insular Government to counteract the tendency, which is probably not peculiar to The People of Porto Rico alone, to permit increases in the salaries to municipal officials, and to keep pace with or outdistance the increases in the receipts of the municipal treasuries. The ultimate disposition of this matter, however, lies within the jurisdiction of the municipalities themselves.

The increase in expenditures for "Highways" was due principally to the repair and construction of streets, sidewalks, and plazas, and to better public lighting; many of the towns of the island having now changed their system of public lighting from oil lamps to electricity.

The increase in expenditures for "Charities and corrections" has been caused by the system of outdoor poor relief and by the establishment of hospitals and relief stations. This increase may easily be explained by the fact that a part of the salaries assigned in the previous budgets to the officials of health and charities, was classified as supervision and inspection of sanitation, which service, since July 1, 1911, has been under the charge of the insular Government.

The increase in expenditures for "Public-service enterprises," was due to the construction of new slaughterhouses and meat shops in various municipalities, and particularly to the construction of a part of the Yauco Aqueduct, work on which was begun during the year.

The increase in the expenditures for "Health conservation and sanitation" was due to the fact that, in accordance with the sanitation law of March 9, 1911, the municipalities of the island had to contribute to the support of the sanitation service, which was under the charge of the insular government, 12 per cent of their net income; which necessitated, for this year, a much larger expenditure than in the year 1910-11, when the service was under the charge of the municipalities.

The increase in the expenditures for the "Protection of life and property," "Recreation," and "On account of debt," were so small as to need no special explanation, being simply the fluctuations in these amounts which are sure to occur from year to year. In reality, among all the entries which appear in the column "On account of debt," the only one showing an increase of any importance is that appearing under "Highways," and this was due to contracts made in 1910-11 for the repair and construction of streets, a part of the cost of which was paid in 1911-12. All the other entries under this heading show a decrease.

The increase in "Miscellaneous" expenditures was due mainly to extraordinary expenditures made by various municipalities, as detailed below:

Fajardo: Plan of the town.....	\$1,000.00
Humacao: Purchase of cattle for sale of meat.....	6,244.16
San Juan, Ponce, and Mayaguez: Expenses of bond redemption.....	1,802.50
Ponce:	
Care of municipal cattle.....	12,927.01
Sundry small increases.....	299.71
<b>Total.....</b>	<b>12,273.38</b>

Exhibit No. 20 shows the percentage distribution of the expenditures by municipalities, following the same classification as used last year. In making these calculations, however, the \$772,000 spent by the four cities in the redemption of bonds was deducted from the sum total of expenditures.

The receipts and expenditures for the year on account of water-supply systems maintained by municipalities are shown in Exhibit No. 21.

Receipts and expenditures on account of all public-service enterprises maintained by municipalities during the fiscal year were as follows:

	Receipts.	Expenditures.		
		Expenses.	Outlays.	On account of debt.
Water-supply systems.....	\$140,419.08	\$45,707.59	\$3,185.61	\$1,080.00
Electric-light systems.....	8,948.60	4,360.27	5,273.31	
Markets.....	32,495.00	6,345.69	1,835.86	
Slaughterhouses.....	3,336.45	7,653.37	14,539.51	2,319.05
Meat shops.....	6,100.40	5,987.55	1,990.10	48.37
Animal pounds.....	7,833.24	60.73		8.00
Cemeteries.....	6,414.95	19,103.39	6,614.66	138.98
Theaters.....	3,202.97	3,290.47	445.28	
Others.....	807.56	163.48	15,246.55	
<b>Total.....</b>	<b>209,658.24</b>	<b>92,642.54</b>	<b>49,130.88</b>	<b>3,564.40</b>

<sup>1</sup> This sum has been spent in the construction of the Ponce pier, for which work the municipality contracted a loan of \$300,000. This work is being done by contract.

The following table shows the actual net income of all the municipalities for 1911-12 by main categories, excluding operations of bond-redemption funds, trust funds, and the amount advanced by the insular Government:

<b>General revenues:</b>	
Property taxes.....	\$1,089,612.10
Tax on slaughter and sale of meat.....	125,162.26
Licenses and permits.....	224,127.04
Fines.....	24,520.73
Subventions, grants, and gifts.....	8,114.96
Miscellaneous.....	16,024.24

<sup>1</sup> This expenditure appeared in the statistics for 1910-11 under the heading of "Street cleaning and refuse disposal," but this year it is included under "Miscellaneous," as the sanitation service took over the cleaning of the streets and the removal of rubbish, and the municipal cattle were accordingly used for various other purposes.

## Commercial revenues:

Department services, including rents and sales.....	\$45,012.99
Privileges.....	2,482.83
Interest.....	5,324.47
Public service enterprises.....	209,658.24

Total..... 1,750,039.86

The expenditures for the year of all municipalities may be classified under the following main categories:

## Expenses:

General Government.....	\$349,334.56
Protection of life and property.....	21,872.13
Health conservation and sanitation.....	193,989.16
Highways.....	308,792.04
Charities and corrections.....	364,361.18
Education.....	4,794.91
Recreation.....	12,772.59
Miscellaneous.....	18,235.25
Public service enterprises.....	92,642.54

Total..... 1,365,794.36

Interest..... 62,618.05

Outlays..... 166,554.24

On account of debt..... 883,278.26

Total..... 2,478,244.91

The following table shows the outlays or expenditures of all municipalities for apparatus and equipment which may be considered as acquisitions or permanent improvements:

Furniture and office equipment.....	\$8,613.28
Municipal buildings, including hospitals.....	8,524.24
Fire apparatus.....	3,337.37
Sewers and sewage disposal.....	7,121.36
Streets, sidewalks, and plazas.....	42,097.61
Street-lighting equipment.....	10,028.72
Vecinal and rural roads.....	9,018.75
Hospital and relief-station equipment.....	19,211.49
Library books and equipment.....	212.27
Musical instruments.....	880.28
Public service enterprises.....	49,130.88
Others.....	8,377.99

Total..... 166,554.24

The outstanding indebtedness of each municipality on June 30, 1912, together with the cash balances on hand is shown in Exhibits Nos. 22 and 23. The grand total of indebtedness amounts to \$562,982.88, of which \$1,298.58 is classified as floating and \$29,453.66 as current indebtedness. The balance consists of debts to the insular Government, and trust funds, to the amount of \$285,140.94, and other obligations, including the net bonded indebtedness of \$247,089.70.

The small floating debt is divided between Añasco, with a debt of \$188.20, and Fajardo, with a debt of \$1,110.38. It may be said in reality that no floating debt exists, as the municipality of Añasco had a surplus on June 30, 1912, of \$670.30, from which the obligation could be paid; while the municipality of Fajardo was left without funds at the close of the fiscal year, owing to the fact that the property tax due from the Fajardo Sugar Co. was paid under protest, and the immediate payment into the municipal treasury was therefore impossible. The part of this tax pertaining to Fajardo amounts to approximately \$19,800.

The amount which appears in the column of "Current indebtedness" represents in part deficits encountered during the year in the appropriations for current expenses and in part final payments on contracts for public works which were made with the understanding that part of the payment be included in the budget for the next fiscal year.

The amount which appears in the column "To insular Government and trust fund" represents the amount of the debt of the municipalities on account of insular advances.

In general, the administration of the municipalities of the island at the present time may be looked upon as very satisfactory in every respect, showing constant improvement not only along economic lines but in administrative as well. This progress is due undoubtedly to the close harmony which exists between the municipal and insular authorities. The intervention of the latter in municipal affairs has proved productive of excellent results, especially in the improved efficiency of the municipal officers.

Respectfully,

ALLAN H. RICHARDSON,  
*Treasurer of Porto Rico.*

The GOVERNOR OF PORTO RICO,  
*San Juan, P. R.*

### EXHIBITS.

#### EXHIBIT No. 1.

##### *Balances on hand, classified. June 30, 1912.*

##### Insular funds:

Cash balance available for expenditure.....	\$1, 794, 554. 46
Due from municipalities and school boards.....	370, 307. 66

Total, insular funds..... \$2, 164, 862. 12

##### Trust funds:

Irrigation fund.....	696, 345. 32
Insular bond redemption tax (sinking fund and interest).....	313, 081. 54
Road construction funds from sale of bonds.....	20, 508. 23
Miscellaneous.....	298, 893. 59

Total trust funds..... 1, 328, 828. 68

Total..... 3, 493, 690. 80

#### EXHIBIT No. 2.

##### *Custody of funds of Porto Rico June 30, 1912.*

American Colonial Bank of Porto Rico, San Juan, P. R.....	\$558, 383. 14
Banco de Puerto Rico, San Juan, P. R.....	100, 000. 00
Banco Territorial y Agrícola de Puerto Rico, San Juan, P. R.....	15, 000. 00
Bank of Nova Scotia, San Juan, P. R.....	250, 000. 00
Credito y Ahorro Ponceño, Ponce, P. R.....	50, 000. 00
Royal Bank of Canada, San Juan, P. R.....	750, 000. 00
J. & W. Seligman & Co., New York, N. Y.....	1, 400, 000. 00
Total.....	3, 123, 383. 14

#### EXHIBIT No. 3.

##### *Receipts and disbursements of the insular government for the fiscal year ending June 30, 1912.*

Balance on hand at beginning of period, July 1, 1911..... \$4, 356, 204. 15

##### Receipts, ordinary:

Customs.....	\$1, 180, 592. 90
Internal revenues.....	2, 778, 231. 32
Miscellaneous.....	410, 339. 73
Repayments.....	1, 066, 232. 14
Transfers, trust funds to insular revenues.....	827. 34

Total..... 5, 436, 223. 43

Receipts, trust funds..... 2, 379, 937. 55

Total receipts, ordinary and trust funds..... 7, 816, 160. 98

Total, including balance on hand at beginning of period..... 12, 172, 365. 13



## Disbursements:

From ordinary and trust fund receipts.....	\$8, 740, 438. 19
Transfers, trust funds to insular revenues.....	827. 34
Total disbursements.....	\$8, 741, 265. 53
Balance on hand at end of period.....	3, 431, 099. 60
Total.....	12, 172, 365. 13

## EXHIBIT No. 4.

*Actual net income of the insular government for the fiscal year ending June 30, 1912.*

Customs.....	\$1, 180, 592. 90
Excise taxes.....	<sup>1</sup> 2, 578, 914. 55
General property tax.....	162, 876. 71
Inheritance tax.....	36, 440. 06
3 per cent tax on insurance premiums.....	16, 627. 50
Miscellaneous.....	401, 910. 90
Total.....	4, 377, 362. 62
Repayments.....	1, 058, 033. 47
Total, including repayments.....	5, 435, 396. 09

## EXHIBIT No. 5.

*Excise stamp sales detailed by sources schedule A—Excise proper, fiscal year ending June 30, 1912.*

Distilled spirits:	
Domestic.....	\$1, 025, 732. 86
Imported.....	30, 031. 78
Total, distilled spirits.....	1, 055, 764. 64
Beer.....	146, 278. 42
Wine.....	92, 083. 29
Champagne.....	2, 897. 08
Total, liquors.....	241, 258. 79
Cigars and manufactured tobacco.....	223, 365. 23
Cigarettes.....	585, 675. 14
Total, tobacco.....	809, 040. 37
Patent medicines.....	2, 375. 63
Playing cards.....	33, 153. 53
Arms and ammunition.....	8, 560. 80
Matches:	
Domestic.....	5, 997. 44
Imported.....	23, 963. 60
Total.....	74, 051. 00
Grand total.....	2, 180, 114. 80

<sup>1</sup> Difference of \$157.23 between this amount and total of excise stamp sales, Exhibits 5, 6, and 7 was caused by \$148.83 having been paid under protest and deposited in trust fund and \$8.40 refund for improper collection.

## EXHIBIT No. 6.

*Excise stamp sales detailed by sources schedule B—License taxes, fiscal year ending June 30, 1912.*

## Manufacturers:

Distillers.....	\$1, 625. 00
Rectifiers.....	16, 075. 00
Manufacturers of stills.....	5. 00
Manufacturers of cigars.....	4, 385. 00
Manufacturers of cigarettes.....	5, 824. 00
Manufacturers of wines.....	24. 00
Manufacturers of medicines.....	140. 00
Manufacturers of perfumery.....	123. 00
Manufacturers of beer.....	25. 00

Total, manufacturers.....	28, 226. 00
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## Wholesale dealers:

Distilled spirits.....	25, 200. 00
Beer and wine.....	13, 812. 00
Cigars and cigarettes.....	8, 976. 00
Perfumery.....	3, 960. 00
Arms and ammunition.....	240. 00

Total, wholesale dealers.....	52, 188. 00
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## Retail dealers:

Distilled spirits, beer and wine.....	108, 360. 00
Cigars and cigarettes.....	67, 199. 00
Arms and ammunition.....	1, 760. 00
Billiards.....	4, 394. 45
Perfumery.....	7, 918. 00

Total retail dealers.....	189, 631. 45
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Grand total.....	270, 045. 45
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## EXHIBIT No. 7.

*Excise stamp sales detailed by sources schedule C—Documentary, fiscal year ending June 30, 1912.*

Notarial instruments.....	\$51, 972. 56
Tax certificates.....	1, 744. 50
Registrars of property.....	70, 470. 10
Sale of blank books.....	315. 67
Sale of law pamphlets.....	163. 55
Administrative fines.....	4, 230. 05
Sworn statements.....	15. 10

Total.....	128, 911. 53
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## EXHIBIT No. 8.

*Miscellaneous receipts detailed, fiscal year ending June 30, 1912.*

Insular telegraph.....	\$71, 092. 47
Harbor and dock fees.....	54, 165. 26
Interest on bank balances and on loans to municipalities and school boards.....	75, 307. 50
Franchises and royalties.....	12, 959. 31
Licenses to foreign corporations.....	775. 00
Licenses to automobiles.....	2, 048. 00
Administrative fines and sale of confiscated goods.....	27. 57
Judicial fees and fines.....	134, 348. 19
Rental of Government property.....	10, 378. 45
Sale of Government property and convict labor.....	27, 834. 37
Rental on mines.....	912. 56
Fees for examination of notaries, etc.....	1, 009. 00
Pay patients, insane asylum.....	8, 198. 67
Other sources.....	2, 854. 55

Total.....	401, 910. 90
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## EXHIBIT No. 9.

Consolidated report of financial institutions in Porto Rico at the close of business June 30, 1912.

	Banco de Puerto Rico.	Banco Territorial y Agrícola.	American Colonial Bank of Porto Rico.	Bank of Nova Scotia.	Credito y Ahorro Ponceño.	Caja de Economías y Prestamos de San German.	Banco Popular de San Juan.	Credito y Ahorro Popular de Yauco.	Royal Bank of Canada.	Caja de Economías y Prestamos de Cabo Rojo.	Caja de Ahorros y Prestamos de San German.	Total
<b>RESOURCES.</b>												
Bonds.....	\$150,000.00	\$401,100.00	\$1,292,927.66		\$82,670.03							\$1,927,697.69
Stock investments.....	300,000.00	276,216.00	90,000.00									90,000.00
Amount due by stockholders.....	302,850.45	33,830.00	433,159.32	\$194,068.00	186,465.24		\$14,502.33		\$607,799.92		\$7,920.60	575,215.00
Amount loaned on collaterals.....	996,366.34	1,216,331.18	826,714.20	142,566.50	268,860.59	\$302,401.39	83,834.38	\$32,377.47	1,138,317.77	\$41,832.79	131,491.43	1,681,285.46
Amount loaned on personal securities.....	236,966.29	862,768.56	78,563.81			15,646.75	110,842.60				2,098.16	5,110,094.04
Overdrafts.....			4,173.08	27,802.34					89,185.60			1,305,537.16
Due from banks, institutions, and private firms.....	331,817.62	103,249.05	977,162.12	13,873.27	241,797.51	2,534.77	60,877.19	26,935.44	1,577,631.13	1,177.71	18,440.86	3,355,216.67
Owned.....	40,000.00	70,000.00	103,090.76		49,856.10		173.04					283,119.90
By foreclosure.....	6,158.84	57,926.78								99.60	442.17	64,085.62
Furniture and fixtures.....	7,897.13	20,479.57	33,539.56		2,954.10	748.97	740.17	347.15			269.57	67,268.41
Taxes.....	6,894.00		235.00		7,480.73	320.05				68.00	1,801.44	7,689.27
Expense account.....	28,722.44		14,711.62			4,902.58	3,519.93	1,041.99	1,478.99			63,277.72
Cash on hand.....												
Bills—												
Legal-tender notes.....	184,259.00	344,336.00	276,324.00	86,551.00	230,714.00	15,647.00	4,325.00	2,620.00	386,432.00	3,010.00	5,354.00	1,539,562.00
Spanish bank notes.....	13,450.00	205.00	7,505.00		650.00		1,626.00	425.00				23,831.00
Gold coin.....	26,205.00	89,670.00	127,960.00	20,580.00	10,530.00	3,155.00	2,200.00	245.00	10,197.55	5,974.00	2,330.00	302,146.55
Silver dollars.....	58,441.00	8,500.00	11,500.00	400.00	8,312.00	330.00	287.00	7.00	18,776.00	255.00	340.00	107,176.00
Silver (fractional coin).....	5,039.58	3,192.26	34,783.95	1,948.53	20,219.84	11,983.48	574.60	123.95	20,667.26	525.66	3,300.10	102,395.21
Cash items (checks on other banks).....	241,738.97	101,602.19	93,737.33	15,380.36	34,775.80	4,328.12		421.66	64,597.87		14,286.65	570,926.95
Assets not included in above heads.....	22,814.76	93,027.21	66,764.33			2,500.00	3,827.25					191,713.55
Total.....	2,960,100.42	3,681,132.76	4,477,228.93	432,880.00	1,146,236.59	264,318.11	287,329.49	64,873.66	3,915,123.99	52,942.76	187,594.38	17,469,451.12
<b>LIABILITIES.</b>												
Authorized capital stock.....	760,000.00	697,900.00			275,000.00						30,000.00	1,752,900.00
Capital stock paid in.....			400,000.00			46,630.00	50,000.00	25,000.00		19,020.00		539,650.00
Bank building rents.....	1,344.37		638.29									1,982.66
Surplus fund.....	300,000.00	50,000.00	380,000.00		10,000.00	7,898.27	6,084.09	259.63		90.28	4,000.00	768,282.26

Provisional reserve	5,531.09	10,000.00	15,531.09
Amount due depositors	1,325,547.04	668,240.56	10,677,814.14
Notes issued	425,000.00	334,257.34	425,000.00
Amount due other banks	3,544,343.05	2,586,743.27	4,230,856.62
Dividends unpaid	23,546.92	95,045.35	1,760,835.99
Undivided profits	17,812.02	4,335.00	216,577.94
Commission account	6,435.86	1,471.84	74.97
Interest account	2,003.02	100,231.20	216,577.94
Exchange account	60,693.21	75.00	116.01
Interest accrued	7,291.35	5,147.04	74.97
Mortgage bonds issued	1,673.39	2,263.80	116.01
Other liabilities not included in above heads	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
Total	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
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	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
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	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
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	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
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	425,000.00	334,257.34	425,000.00
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	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
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	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
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	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	116.01
	50,000.00	924,020.00	123,208.56
	6,799.07	1,263.51	34,027.53
	2,940,100.45	432,880.00	974,020.00
	1,325,547.04	668,240.56	10,677,814.14
	425,000.00	334,257.34	425,000.00
	3,544,343.05	2,586,743.27	4,230,856.62
	23,546.92	95,045.35	1,760,835.99
	17,812.02	4,335.00	216,577.94
	6,435.86	1,471.84	74.97
	2,003.02	100,231.20	216,577.94
	60,693.21	75.00	116.01
	7,291.35	5,147.04	74.97
	1,673.39	2,263.80	

## EXHIBIT No. 10.

*Transactions in Porto Rico in the calendar year 1911 by insurance companies.*

## A. FIRE INSURANCE.

Name.	Fire insurance written.	Gross premiums thereon.	Losses paid in 1911.	Losses incurred in 1911.
Aachen & Munich Fire Insurance Co. of Aix-la-Chapelle, Germany.....	\$3,855,709.81	\$17,568.09	\$3,481.51	\$3,481.51
Atlas Assurance Co. (Ltd.), of London, England.....	729,394.00	5,073.96	9,980.17	17,008.00
Baloue Fire Insurance Co., of Bales, Switzerland.....	2,758,899.71	11,325.90	1,675.08	1,675.08
British American Assurance Co., of Toronto, Canada.....	985,762.00	10,281.43	26,289.74	30,039.74
Commercial Union Assurance Co. (Ltd.), London, England.....	1,724,404.00	13,533.43	.....	25.00
Feuer Assecuranz Co. von 1877, Hamburg.....	1,200,445.00	10,321.22	3,519.25	3,519.25
Guardian Assurance Co. (Ltd.), London, England.....	4,302,169.00	31,601.13	6,831.09	7,681.09
Hamburg-Bremen Fire Insurance Co. of Hamburg, Germany.....	4,828,876.91	23,175.40	23,179.33	23,179.33
Liverpool & London & Globe Insurance Co., of Liverpool, England.....	933,500.00	6,819.12	97.50	.....
London & Lancashire Fire Insurance Co., of Liverpool, England.....	764,650.00	7,348.16	15,437.12	15,437.12
London Assurance Corporation, London, England.....	89,000.00	948.88	.....	.....
L'Union de Paris.....	2,383,415.00	12,440.91	11,225.00	16,303.50
Magdeburger Feuerversicherungs Gesellschaft, Magdeburg, Germany.....	1,488,433.25	13,876.69	7,350.34	7,350.34
North British & Mercantile Insurance Co., London, England.....	11,782,142.43	50,142.00	.....	.....
Nord-Deutsche Insurance Co. Hamburg, Germany.....	3,947,869.36	15,061.66	17,825.20	17,825.20
Northern Assurance Co. (Ltd.), of London, England.....	2,772,584.00	15,391.39	50.00	.....
Norwich Union Fire Insurance Society, of Norwich, England.....	3,855,550.00	31,363.30	18,222.02	63,050.00
Palatine Insurance Co. (Ltd.), of London, England.....	688,385.00	6,134.39	7,496.00	.....
Phoenix Assurance Co. (Ltd.), London, England.....	3,893,895.52	4,398.46	.....	.....
Providence Washington Insurance Co., Providence, R. I.....	90,400.00	978.26	.....	2,000.00
Prussian National Insurance Co., of Stettin, Germany.....	2,668,408.60	10,373.08	17,748.96	17,748.96
Royal Exchange Assurance, London, England.....	264,450.00	2,354.75	370.00	.....
Royal Insurance Co. (Ltd.), of Liverpool, England.....	4,309,104.00	23,197.80	25,398.00	25,398.00
Royal Insurance Co. (Ltd.), of Liverpool, England (Lancashire).....	930,520.00	5,948.28	7,980.96	7,980.96
Western Assurance Co. of Toronto, Canada.....	1,768,811.00	13,958.68	8,815.00	8,815.00
Yorkshire Insurance Co. (Ltd.), of London, England.....	1,068,805.00	8,859.16	2,195.00	.....
Total.....	64,085,583.59	352,502.63	220,166.27	273,550.08

*Transactions in Porto Rico in the calendar year 1911 by insurance companies—Contd.*

## B. MARINE INSURANCE.

Name.	Marine insurance written.	Gross premiums thereon.	Losses paid in 1911.	Losses incurred in 1911.
Agrippina Marine River & Land Transport Insurance Co., Colonia, Germany.....	\$428,376.32	\$1,539.92	\$713.96	\$713.96
British & Foreign Insurance Co. (Ltd.), of Liverpool, England.....	4,890,387.03	14,839.09	4,286.97	4,286.97
Deutscher Lloyd, Marine Insurance Co., Berlin, Germany.....	799,368.00	2,974.74	896.06	896.06
Feuer Assurances Co. von 1877, Hamburg, Germany.....	271,818.00	1,283.59	1,000.00	1,000.00
Indemnity Mutual Marine Assurance Co. (Ltd.), of London, England.....	81,203.00	403.70	.....	.....
International Lloyd Marine Insurance Co. of Berlin, Germany.....	1,798,607.00	5,443.56	657.78	9,540.71
Mannheim Insurance Co., of Mannheim, Germany.....	2,429,717.28	7,596.94	1,015.29	1,015.29
Nord-Deutsche Insurance Co. of Hamburg, Germany.....	2,384,804.80	7,732.20	2,292.78	2,292.78
Royal Insurance Co. (Ltd.), of Liverpool, England.....	332,518.40	1,513.28	20.00	20.00
Providence Washington Insurance Co., Providence, R. I.....	83,814.00	211.52	.....	.....
Total.....	13,500,613.83	43,537.54	10,882.84	19,774.77

## C. LIFE INSURANCE.

Name.	Policies in force Dec. 31, 1910.	Policies written, revived, etc., in 1911.	Discontinued by death, lapse, surrender, maturity, etc., in 1911.	Policies in force Dec. 31, 1911.	Annuities in force, annual payments.	Gross premiums paid.
New York Life Insurance Co. of New York.....	\$2,363,531.00	\$370,543.00	\$240,693.00	\$2,493,381.00	\$482.00	\$124,177.76
Sun Life Assurance Co. of Canada.....	2,160,753.67	706,677.91	404,291.00	2,463,140.58	.....	117,473.26
The Imperial Life Assurance Co. of Canada.....	52,000.00	25,000.00	9,000.00	68,000.00	.....	2,076.90
The Manufacturers Life Insurance Co. of Toronto, Canada.....	393,817.00	107,750.00	52,440.00	449,127.00	.....	22,160.88
The Mutual Life Insurance Co. of New York.....	193,100.00	.....	44,382.00	148,718.00	.....	8,081.15
Total.....	5,163,201.67	1,209,970.91	750,806.00	5,622,366.58	482.00	273,969.96

## D. GUARANTEE INSURANCE.

Name.	Bonds written.	Gross premiums thereon.	Losses paid in 1911.	Losses incurred in 1911.
American Surety Co. of New York.....	\$626,050.00	\$1,907.02	\$368.50	\$368.50
Fidelity & Deposit Co. of Maryland.....	2,472,868.31	9,496.18	1,215.53	519.61
National Surety Co. of New York.....	1,541,973.00	8,307.45	2,000.00	2,000.00
Total.....	4,640,891.31	19,712.65	3,584.03	2,888.11

## E. INDEMNITY INSURANCE.

Name.	Indemnity insurance written.	Gross premiums thereon.	Losses paid in 1911.	Losses incurred in 1911.
The Travelers Indemnity Co., Hartford, Conn. <sup>1</sup> .....	.....	\$6,718.14	.....	.....

<sup>1</sup> The Travelers Indemnity Co. furnished no statement of the amount of indemnity insurance written nor of losses paid or incurred.

*Transactions in Porto Rico in the calendar year 1911 by insurance companies—Contd.*

## F. HURRICANE INSURANCE.

Name.	Hurricane insurance written.	Gross premiums thereon.	Losses paid in 1911.	Losses incurred in 1911.
Henry Head & Co., London, England.....	\$4, 712, 148. 54	\$26, 626. 22	\$305. 00	\$206. 00

## G. LIABILITY INSURANCE.

Name.	Liability insurance written.	Gross premiums thereon.	Losses paid in 1911.	Losses incurred in 1911.
Employers Liability Assurance Corporation (Ltd.), of London, England <sup>1</sup> .....		\$27, 306. 88	\$5, 706. 61	\$7, 136. 61

<sup>1</sup> The Employers Liability Assurance Corporation (Ltd.) furnished no statement of the amount of liability insurance written.

## EXHIBIT No. 11.

*Total assessed value of real and personal property, by municipalities, for fiscal years 1912 and 1913.*

Municipalities.	1912 (corrected to Dec. 31, 1911).	1913 (corrected to Aug. 10, 1912).	Municipalities.	1912 (corrected to Dec. 31, 1911).	1912 (corrected to Aug. 10, 1912).
Adjuntas.....	\$1, 328, 650	\$1, 602, 633	Lares.....	\$1, 576, 073	\$2, 219, 985
Aguada.....	1, 870, 292	1, 918, 555	Las Marias.....	1, 361, 516	1, 445, 863
Aguadilla.....	1, 955, 296	2, 013, 807	Loiza.....	2, 231, 716	2, 225, 363
Agua Buenas.....	441, 126	445, 092	Manati.....	2, 390, 451	2, 435, 065
Albionito.....	818, 339	1, 023, 964	Maricao.....	1, 071, 607	1, 207, 431
Anasco.....	1, 455, 585	1, 835, 399	Maunabo.....	608, 661	615, 416
Arecibo.....	7, 717, 408	7, 405, 110	Mayaguez.....	6, 915, 375	6, 945, 607
Arroyo.....	1, 353, 741	1, 385, 442	Moca.....	803, 333	840, 001
Barceloneta.....	1, 843, 004	2, 287, 404	Morovis.....	651, 387	657, 672
Barranquitas.....	478, 094	489, 247	Naguabo.....	1, 960, 418	1, 932, 396
Barros.....	551, 074	765, 508	Naranjito.....	338, 179	338, 421
Bayamon.....	3, 567, 507	3, 396, 236	Patillas.....	1, 242, 901	1, 253, 227
Cabo Rojo.....	1, 585, 972	2, 182, 478	Penuelas.....	1, 062, 349	1, 069, 421
Caguas.....	4, 176, 092	3, 870, 019	Ponce.....	12, 779, 159	13, 867, 673
Camuy.....	1, 623, 236	1, 803, 212	Quebradillas.....	704, 578	702, 737
Carolina.....	1, 831, 782	2, 579, 510	Rincon.....	610, 313	736, 365
Cayey.....	1, 760, 847	2, 535, 038	Rio Grande.....	1, 835, 479	1, 855, 173
Ciales.....	1, 105, 524	1, 479, 306	Rio Piedras.....	3, 594, 278	4, 605, 327
Cidra.....	519, 408	790, 087	Sabana Grande.....	545, 969	583, 562
Coamo.....	1, 334, 300	1, 750, 755	Salinas.....	3, 350, 055	3, 517, 716
Comerio.....	876, 134	1, 151, 760	San German.....	2, 362, 364	2, 374, 080
Corozal.....	508, 126	619, 288	San Juan.....	27, 188, 270	27, 860, 508
Culebra.....	130, 598	150, 370	San Lorenzo.....	868, 012	876, 364
Dorado.....	903, 352	969, 435	San Sebastian.....	1, 058, 085	1, 615, 174
Fajardo.....	5, 889, 070	6, 433, 479	Santa Isabel.....	2, 252, 786	2, 319, 731
Guayama.....	3, 528, 618	3, 539, 867	Toa Alta.....	591, 948	655, 117
Guayanilla.....	1, 247, 925	1, 588, 238	Toa Baja.....	1, 069, 190	1, 907, 560
Guaynabo <sup>1</sup> .....		650, 148	Trujillo Alto.....	817, 030	885, 560
Gurabo.....	1, 243, 104	1, 294, 718	Utuado.....	2, 194, 776	2, 433, 257
Hatillo.....	1, 179, 195	1, 180, 203	Vega Alta.....	1, 010, 044	1, 793, 768
Hormigueros <sup>1</sup> .....		822, 441	Vega Baja.....	1, 885, 776	1, 917, 232
Humacao.....	4, 023, 553	4, 246, 647	Vieques.....	2, 825, 674	2, 848, 409
Isabela.....	1, 014, 093	1, 104, 004	Yabucoa.....	2, 128, 680	2, 289, 426
Jayuya.....	798, 783	799, 608	Yauco.....	5, 824, 154	6, 071, 497
Juana Diaz.....	3, 144, 953	3, 166, 815			
Juncos.....	1, 981, 483	2, 238, 499	Total.....	163, 400, 320	178, 275, 130
Lajas.....	1, 303, 470	1, 796, 726			

<sup>1</sup> Segregated from Rio Piedras.

<sup>1</sup> Segregated from Mayaguez.





	Urban.			Cana.	Total real property.
	Lots.	Improvements.	Total.		
Adjuntas.....	\$16,835	\$57,889	\$74,724	\$33,596	\$1,505,508
Aguada.....	25	26,700	26,725	596,060	1,490,890
Aguadilla.....	163,131	437,647	600,778	321,580	1,543,960
Agua Buenas.....	2,820	49,060	51,880	2,560	386,064
Albionito.....	1,230	149,358	150,588	900	876,230
Anasco.....	5,399	182,562	187,961	564,506	1,646,040
Arecibo.....	270,817	946,146	1,226,963	1,409,873	5,495,739
Arroyo.....	37,449	212,616	250,065	341,296	1,314,254
Barceloneta.....	24,936	112,960	137,896	476,767	2,005,583
Barranquitas.....	997	37,660	38,657	200	426,573
Barros.....	10	41,060	41,060	2,945	699,831
Bayamon.....	402,192	775,531	1,177,723	247,979	2,706,928
Cabo Rojo.....	1,396	196,700	198,096	719,485	1,928,118
Caguas.....	13,818	868,089	870,907	230,051	2,929,113
Camuy.....	1,693	96,523	98,206	266,927	1,543,118
Carolina.....	7,655	193,820	201,475	327,966	1,707,269
Caye.....	71,846	369,378	441,224	90,866	2,113,753
Ciales.....	8,645	175,067	183,712	2,300	1,346,108
Cidra.....	120	33,408	33,528	63,670	713,923
Cosamo.....	90	308,641	308,931	18,830	1,476,245
Comerio.....	1,692	97,409	99,001	1,440	1,010,314
Corozal.....	323	51,193	51,516	3,208	428,282
Culebra.....	1,030	9,970	11,000		103,860
Dorado.....	100	28,306	28,406	312,372	845,681
Fajardo.....	19,918	524,621	544,539	848,276	3,767,713
Guayama.....	20,970	785,417	806,387	891,705	2,982,966
Guayanilla.....	14,617	78,595	93,212	364,266	1,281,490
Guaynabo.....	720	5,520	6,240	96,836	570,399
Guarabo.....	200	89,769	89,969	269,660	1,168,184
Hatillo.....	3,450	53,206	53,655	158,206	1,071,907
Hormigueros.....	3,351	30,615	33,966	368,241	726,708
Humacao.....	26,033	642,327	668,360	877,874	3,600,710
Isabela.....	11,524	79,086	90,610	63,092	953,343
Jayuya.....	3,186	20,724	23,910	4,060	744,364
Juana Diaz.....	14,886	194,972	209,858	1,109,720	2,832,212
Juncos.....	2,610	231,520	234,130	325,421	1,711,206
Lajas.....	450	37,180	37,630	607,186	1,569,602
Lares.....	6,185	210,770	216,955	3,575	2,048,610
Las Marias.....	2,190	15,390	17,570	18,120	1,412,201
Loiza.....	403	50,612	51,015	389,180	1,822,308
Manati.....	5,208	436,032	441,298	575,524	2,046,023
Maricao.....	778	52,558	53,333	900	1,342,551
Mayaguez.....	886	40,573	41,460	180,665	521,631
Mayaguez.....	793,711	2,348,069	3,141,770	502,580	5,410,154
Moca.....	1,630	19,650	21,280	152,260	774,426
Morovis.....	750	36,770	37,520	37,320	577,811
Naguabo.....	24,830	147,061	171,911	502,460	1,636,736
Naranjito.....	285	18,220	18,505	85	293,428
Patillas.....	787	92,558	93,345	286,585	1,069,691
Penuelas.....	4,979	46,519	51,498	210,550	921,227
Ponce.....	1,960,604	3,164,689	5,131,293	1,428,706	9,627,106
Quebradillas.....	90	79,896	79,986	121,263	617,423
Rincon.....	4,700	15,990	20,690	202,576	679,380
Rio Grande.....	5,505	101,206	106,710	402,679	1,574,183
Rio Piedras.....	434,647	890,940	1,015,457	636,615	3,699,377
Sabana Grande.....	185	103,667	103,842	111,361	503,507
Salinas.....	28,630	114,598	143,228	811,466	2,971,827
San German.....	41,883	478,937	520,820	184,386	1,911,664
San Juan.....	5,868,961	8,736,237	14,605,198		16,842,682
San Lorenzo.....	860	135,360	136,220	83,470	698,067
San Sebastian.....	3,008	88,817	91,915	103,767	1,406,164
Santa Isabel.....	16,585	68,060	84,645	796,933	1,968,128
Toe Alta.....	4,300	54,130	58,430	70,560	530,906
Toe Baja.....	6,810	79,896	86,706	536,660	1,461,821
Trujillo Alto.....	1,020	18,610	19,630	58,436	710,477
Ututo.....	34,964	252,791	287,775	89,345	2,137,223
Vega Alta.....	40	51,060	51,090	168,910	1,026,908
Vega Baja.....	5,843	140,420	146,263	537,520	2,703,064
Vieques.....	13,846	214,930	228,476	537,535	2,384,733
Yabucoa.....	1,015	150,260	151,266	661,870	1,906,675
Yauco.....	23,445	648,431	671,876	748,776	4,945,679
Total.....	10,466,369	27,015,130	37,481,499	23,119,157	10,88,108,207

## REPORT OF THE TREASURER.

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## EXHIBIT No. 13.

*Total assessed value of real and personal property, by municipalities, for the fiscal year 1912-13.*

[Corrected to Aug. 10, 1912.]

Municipality.	Real property.	Personal property.	Total.
Adjuntas.....	\$1,505,508	\$97,126	\$1,602,633
Aguada.....	1,480,880	437,675	1,918,555
Aguadilla.....	1,543,960	469,847	2,013,807
Agua Buenas.....	366,064	79,028	445,092
Albionito.....	876,230	147,734	1,023,964
Anasco.....	1,646,040	189,359	1,835,399
Arecibo.....	5,498,739	1,906,371	7,405,110
Arroyo.....	1,114,264	271,188	1,385,442
Barceloneta.....	2,005,588	281,816	2,287,404
Barranquitas.....	426,573	62,674	489,247
Barros.....	669,831	65,677	735,508
Bayamon.....	2,706,928	689,308	3,396,236
Cabo-Rojo.....	1,928,118	254,360	2,182,478
Caguas.....	2,929,113	940,906	3,870,019
Camuy.....	1,543,118	260,094	1,803,212
Carolina.....	1,707,269	872,241	2,579,510
Cayey.....	2,113,753	421,285	2,535,038
Ciales.....	1,346,106	133,198	1,479,306
Cidra.....	713,938	76,154	790,092
Coamo.....	1,476,245	274,510	1,750,755
Comerio.....	1,010,314	141,446	1,151,760
Corozal.....	428,282	91,006	519,288
Culebra.....	103,860	46,520	150,370
Dorado.....	845,681	123,754	969,435
Fajardo.....	3,767,712	2,665,786	6,433,479
Guayama.....	2,982,966	556,901	3,539,867
Guayanilla.....	1,281,480	306,748	1,588,228
Guaynabo.....	570,389	79,759	650,148
Gurabo.....	1,158,184	136,534	1,294,718
Hatillo.....	1,071,907	108,296	1,180,203
Hormigueros.....	726,706	96,733	823,441
Humacao.....	3,600,710	646,837	4,246,647
Isabela.....	953,343	150,561	1,104,004
Jayuya.....	744,364	55,244	799,608
Juana Diaz.....	2,832,212	384,603	3,216,815
Juncos.....	1,711,205	527,264	2,238,469
Lajas.....	1,559,602	267,124	1,796,726
Lares.....	2,048,610	171,375	2,219,985
Las Marias.....	1,412,201	83,680	1,445,861
Loíza.....	1,822,303	403,058	2,226,361
Manati.....	2,046,023	392,642	2,438,665
Maricao.....	1,342,561	54,880	1,397,431
Maunabo.....	621,631	93,785	615,416
Mayaguez.....	5,410,164	1,533,453	6,943,607
Moca.....	774,426	66,575	840,001
Morovis.....	577,811	79,861	657,672
Naguabo.....	1,636,736	315,860	1,952,596
Naranjito.....	293,488	44,963	338,451
Patillas.....	1,059,691	193,536	1,253,227
Penuelas.....	921,227	148,194	1,069,421
Poncos.....	9,827,106	4,270,570	13,897,676
Quebradillas.....	617,423	85,314	702,737
Rincon.....	679,350	57,015	736,365
Rio Grande.....	1,574,183	280,990	1,855,173
Rio Piedras.....	3,699,377	806,150	4,505,527
Sabana Grande.....	503,507	80,055	583,562
Salinas.....	2,971,827	545,899	3,517,716
San German.....	1,911,664	462,416	2,374,080
San Juan.....	16,842,682	11,037,826	27,880,508
San Lorenzo.....	696,057	181,307	876,364
San Sebastian.....	1,406,184	209,010	1,615,174
Santa Isabel.....	1,958,128	331,603	2,319,731
Toa-Alta.....	530,906	124,211	655,117
Toa-Baja.....	1,461,821	445,739	1,907,560
Trujillo Alto.....	710,477	175,083	885,560
Ututo.....	2,137,223	296,014	2,433,237
Vega-Alta.....	1,026,998	766,770	1,793,768
Vega-Baja.....	1,703,064	214,178	1,917,232
Vieques.....	2,384,733	453,676	2,848,409
Yabucoa.....	1,906,675	382,751	2,289,426
Yauco.....	4,945,879	1,126,618	6,071,497
<b>Total.....</b>	<b>138,166,207</b>	<b>40,106,923</b>	<b>178,273,130</b>

## EXHIBIT No. 14.

Number of acres by municipalities and classes, for the fiscal year 1912-13.

[Corrected to Aug. 10, 1912.]

Municipality.	Cane.	Coffee.	Tobacco.	Pineapples.	Oranges.	Coconuts.	Minor fruits.	Pasture.	Timber and brush.	Marsh lands.	Other lands.	Total.
Adjuntas	597	12,019			30		3,211	10,373	16,475		160	42,775
Aguada	4,153	799		3		459	1,823	10,104			6	17,320
Aguadilla	3,998	197	4			411	882	9,113	6,943		538	21,226
Aguas Buenas	22	1,150					899	14,708	2,097		98	18,946
Aibonito	15	1,911	2,602				2,085	9,918	3,322		76	19,799
Arecibo	5,027	2,368	64			317	2,575	9,399	2,425	64	748	24,973
Aroab	11,227	2,491	192	28	572	13	2,045	25,644	25,323	450	7,308	75,309
Aroyo	2,635	1,302	18			129	39	6,062	1,164	457	9	9,655
Barranconeta	3,633	1,172	265	147	308	7	294	6,087	4,180	138	4,629	20,579
Barraquillas	57		42				682	15,122	2,859		787	20,632
Barrera	3,550	668		129	602		2,700	15,453	14,654		1,484	39,027
Bayamon	2,960	99		146		34	2,980	22,469	8,576		140	31,657
Cabo Rojo	7,918	336				666	2,297	20,262	4,798	2,294	1,333	43,395
Caguas	2,770	1,100	1,327	5		4	1,822	14,518	7,089		189	27,779
Camuy	2,790	1,118	79				1,404	22,064	1,173	997	201	31,612
Carolina	1,000			334	7		1,613	13,077	9,803	14	632	21,515
Carry	56	3,480	2,727				4,057	12,927	3,714		64	41,686
Cataño	1,908	8,601	2,746	10			1,244	12,335	3,405		48	21,879
Cayey	248	2,820	15				1,474	38,684	1,181		1,817	48,373
Cenaro	24	782	1,849			6	731	12,085	1,891		337	17,008
Corral	76	927	30				1,336	20,566	1,743		86	24,883
Culebra							2	3,136				4,880
Dorado	2,560		4	136	173	60	22	3,599	4,977	717	922	13,160
Fajardo	8,324	3,238			80	18	47	24,158	3,906		1,271	41,109
Guayama	6,911	3,905				157	280	26,711	3,520	933	211	39,338
Guayanilla	1,094	3,158	26			55	3,176	7,463	7,222		195	26,263
Guaynabo	242	3,447		47	189	2	371	11,269	2,002	100	1,479	16,639
Guayubon	2,808	170	1,745				40	12,284	7,782		42	21,399
Hatillo	2,906	586	27	4			1,350	14,999	6,598		261	28,473
Herrigueres	3,028	244				4	1,535	1,782			49	6,469
Humacao	8,052	100	1,326	38		1,269	731	31,241	5,616	794	19	44,187
Isabela	1,198	765	43				6,728	11,074	16,628		5,912	32,510
Jayuya	41	5,741		3		83	1,969	7,998	4,580		1,410	20,943
Juncos	7,865	4,900			13	3	3,055	38,065	3,465		28	54,786
Lajas	2,271	24	761				1,117	10,016	3,749		183	15,483
Lares	6,463	243		227		10	1,285	23,113	14,972		118	38,310
Las Marias	193	12,998		10	27		686	9,379	15,145		598	30,889

Ioliza.....	3,664	729	370	764	.....	526	1,086	420	19,970	1,631	1,002	2,536	31,407
Manati.....	3,660	328	83	.....	.....	.....	39	910	17,433	3,419	74	186	27,431
Maricao.....	28	11,890	.....	.....	.....	.....	.....	28	5,507	10,605	164	.....	28,122
Maunabo.....	2,528	110	.....	.....	.....	.....	50	164	6,507	3,254	.....	61	11,664
Mayaguez.....	6,002	9,460	.....	44	.....	6	335	1,073	10,628	4,596	70	290	23,900
Moca.....	1,711	2,638	.....	.....	.....	.....	.....	2,833	12,864	6,282	.....	.....	24,068
Morovis.....	654	2,112	46	.....	.....	.....	.....	1,551	16,122	4,737	.....	338	24,466
Naguabo.....	6,343	97	.....	.....	.....	.....	153	104	20,312	1,198	694	.....	28,866
Naranjito.....	2	822	111	1	.....	.....	.....	891	13,373	9,999	10	.....	16,219
Padillas.....	2,048	1,080	2	.....	.....	.....	30	3,104	12,486	9,292	68	.....	30,898
Penuelas.....	1,636	2,213	.....	.....	.....	.....	.....	2,556	10,476	9,714	.....	1,238	27,033
Ponce.....	10,393	6,832	7	.....	.....	.....	14	2,990	36,082	10,402	981	1,734	68,898
Quebradillas.....	1,311	664	71	.....	.....	.....	4	796	6,662	2,979	.....	4	12,491
Rincon.....	1,693	123	.....	1	.....	.....	223	880	6,340	5,901	.....	.....	8,267
Rio Grande.....	3,632	708	10	882	.....	523	556	229	24,278	6,803	307	3,429	35,631
Rio Piedras.....	4,405	144	117	.....	.....	.....	.....	313	17,165	2,880	.....	81	24,696
Sabana Grande.....	2,799	974	.....	.....	.....	.....	.....	2,596	10,155	5,913	200	1,973	21,298
Salinas.....	6,617	308	.....	.....	.....	.....	21	315	27,087	4,561	.....	2,590	41,960
San German.....	2,881	2,242	29	2	.....	.....	.....	1,198	17,007	4,561	.....	692	31,812
San Juan.....	.....	.....	.....	.....	.....	.....	57	.....	17,007	4,561	99	15	1,051
San Lorenzo.....	1,084	604	88	.....	.....	.....	.....	970	16,486	9,800	.....	2,326	31,197
San Sebastian.....	1,422	8,433	.....	.....	.....	.....	.....	9,923	17,280	1,983	10	2,073	42,088
Santa Isabel.....	6,717	.....	.....	.....	.....	.....	3	123	14,797	240	514	1,190	23,643
Toe-Alta.....	684	118	4	75	290	290	.....	377	10,917	2,669	8	145	16,196
Toe-Baja.....	4,109	109	.....	47	538	538	79	38	6,517	2,785	245	1,37	14,694
Trujillo Alto.....	724	23	.....	117	67	67	.....	443	10,587	3,911	.....	233	12,874
Utando.....	1,087	12,916	130	.....	.....	.....	.....	4,940	16,979	36,802	1	1,604	73,109
Vega-Alta.....	1,160	93	1	1	116	116	8	216	6,686	4,761	1,209	1,233	16,468
Vega-Baja.....	4,418	93	7	413	841	841	36	377	11,397	6,537	291	2,690	26,419
Vieques.....	7,989	.....	.....	.....	.....	.....	6	21	16,686	5,942	80	649	31,222
Yabucoa.....	6,493	20	.....	.....	.....	.....	40	344	19,103	4,165	28	413	30,605
Yauco.....	4,985	7,399	302	.....	.....	.....	40	6,339	21,533	15,731	886	2,965	68,373
Total.....	209,378	163,240	17,175	2,664	4,697	4,697	6,566	102,064	1,083,392	417,283	15,330	68,091	2,046,290

## EXHIBIT NO. 15.

Average value per acre, by municipalities and classes, for the fiscal year 1912-13.

[Corrected to Aug. 10, 1912.]

Municipality.	Cane.	Coffee.	Tobacco.	Pineapples.	Oranges.	Coconuts.	Minor fruits.	Pasture.	Timber and brush.	Marsh lands.	Other lands.	Total.
Adjuntas.....	\$66.26	\$63.77	.....	.....	\$50.00	.....	\$20.60	\$16.00	\$9.92	.....	\$10.75	\$28.70
Aguada.....	143.42	88.26	.....	\$100.00	.....	\$145.17	28.80	24.35	2.51	.....	5.00	48.91
Aguadilla.....	95.46	20.63	\$65.00	.....	.....	113.94	42.97	28.98	9.65	.....	55.65	40.21
Agua Buenas.....	116.37	46.53	72.03	.....	.....	.....	18.86	13.94	6.35	.....	12.76	15.36
Aibonito.....	60.00	56.46	55.59	.....	.....	.....	25.36	20.01	13.12	.....	7.82	27.41
Anasco.....	110.64	70.58	.....	.....	140.53	269.45	20.59	27.10	15.48	\$10.00	6.98	31.88
Arcebo.....	126.58	45.10	47.49	76.07	79.23	115.88	32.26	33.73	7.59	14.88	10.80	36.99
Arroyo.....	130.02	38.34	.....	.....	.....	100.00	27.82	33.00	10.15	30.82	55.74	58.54
Barceloneta.....	131.23	59.39	79.38	111.53	104.39	98.43	34.44	41.10	9.94	22.46	8.04	48.76
Barraquitas.....	50.00	45.01	39.61	.....	25.00	.....	31.53	15.73	10.16	.....	16.08	17.69
Barrus.....	51.00	52.16	60.00	.....	.....	.....	27.61	12.53	8.28	.....	6.94	15.44
Bayamon.....	92.91	45.10	.....	80.89	115.39	73.82	17.33	25.54	13.38	1.55	23.55	33.47
Cabo-Rojó.....	90.86	61.92	.....	80.47	.....	143.35	35.27	28.62	8.78	23.29	23.25	38.37
Caguas.....	82.86	49.56	90.37	200.00	.....	103.00	21.13	20.44	8.19	.....	27.05	36.62
Camuy.....	91.07	53.01	84.30	.....	.....	.....	47.41	27.74	8.74	60.00	79.43	37.33
Carolina.....	121.04	45.51	.....	96.80	100.00	45.27	20.27	37.44	43.08	13.89	7.88	45.82
Cayey.....	60.87	45.17	122.75	.....	.....	.....	40.41	30.97	11.90	2.80	5.90	36.60
Cidras.....	41.07	64.21	100.00	.....	.....	.....	20.49	19.15	8.95	.....	1.71	26.41
Comerio.....	48.64	41.26	58.30	.....	.....	.....	29.30	20.31	12.59	.....	15.39	26.41
Comerio.....	75.92	56.04	45.00	.....	.....	.....	28.99	20.73	7.90	.....	24.45	22.57
Corozal.....	47.63	47.63	58.89	.....	.....	24.00	28.87	18.13	10.58	.....	7.21	22.54
Culebra.....	42.21	57.51	43.57	.....	.....	.....	23.16	11.56	6.83	.....	6.83	13.66
Dorado.....	131.73	75.00	.....	57.06	142.95	50.00	30.00	23.77	8.83	.....	13.49	18.42
Fajardo.....	101.75	39.53	.....	.....	300.00	222.22	28.59	61.62	13.90	28.55	26.03	51.07
Guayama.....	134.68	60.27	.....	.....	.....	102.12	22.43	29.86	10.19	20.88	26.03	43.83
Guayanilla.....	177.35	60.27	60.00	.....	.....	193.63	30.78	31.00	7.42	8.83	39.39	44.93
Guaynabo.....	103.90	47.58	60.00	.....	.....	100.00	28.27	15.59	14.32	.....	31.64	38.73
Guarabo.....	112.60	52.65	121.07	96.59	72.76	.....	27.12	27.12	8.72	10.00	11.64	38.45
Hatillo.....	94.51	39.79	41.11	.....	.....	104.00	21.12	30.02	6.73	.....	11.64	45.83
Hormigueros.....	.....	58.69	.....	75.00	.....	.....	44.48	43.86	.....	.....	21.43	37.89
Humacao.....	109.01	51.79	100.00	.....	.....	.....	34.78	28.00	11.91	.....	21.43	37.89
Isabela.....	53.06	49.68	.....	70.00	.....	40.12	30.78	28.00	15.67	9.91	28.00	41.39
Jayuya.....	66.56	53.10	64.88	.....	.....	128.98	37.23	26.64	7.31	.....	28.00	41.39
Juana Díaz.....	139.60	47.74	.....	60.00	30.00	93.53	24.82	13.64	8.83	.....	15.63	18.94
Juncos.....	137.03	58.96	.....	.....	.....	.....	27.73	22.10	10.80	24.44	72.01	38.73
Lajas.....	91.13	57.00	27.90	.....	.....	108.00	31.23	23.47	27.76	.....	98.43	41.69
Lares.....	50.00	92.61	.....	188.87	.....	.....	44.08	27.60	12.01	3.00	6.83	41.69
Las Marias.....	82.52	64.09	.....	60.00	50.00	.....	23.91	14.19	16.44	.....	10.00	35.49

Lolita.....	105.22	45.74	35.10	84.89	29.09	28.93	12.82	21.95	16.34	38.29
Manati.....	153.86	56.59	67.84	73.59	21.05	24.91	9.38	10.00	36.88	42.77
Maricao.....	32.14	74.18	.....	1.08	32.17	11.70	16.93	1.08	.....	46.14
Maunabo.....	63.56	46.95	.....	29.86	12.13	12.58	5.92	.....	28.73	22.28
Mayaguez.....	98.71	54.78	50.23	114.22	25.23	28.37	14.60	25.43	43.85	45.80
Moca.....	88.98	62.84	.....	.....	29.09	23.09	6.40	.....	.....	28.19
Morovis.....	67.86	66.71	47.39	.....	19.69	16.68	10.78	.....	2.19	20.10
Naguabo.....	79.22	42.69	.....	.....	18.37	23.09	3.62	9.99	.....	36.21
Naranjito.....	42.50	46.99	43.95	.....	26.07	13.04	6.78	8.00	.....	15.22
Patillas.....	94.02	43.16	50.00	.....	15.49	20.85	7.05	10.29	.....	22.58
Penuelas.....	128.70	63.00	.....	100.96	.....	20.85	9.76	.....	5.33	28.86
Ponce.....	137.47	66.14	40.00	85.55	27.14	24.71	13.47	.....	17.23	45.96
Quebradillas.....	92.61	50.64	84.44	100.00	27.09	28.61	11.39	6.57	72.50	40.58
Rincon.....	119.60	59.54	.....	100.00	63.19	11.70	30.00	.....	16.00	39.55
Rio Grande.....	110.56	46.73	150.00	171.78	18.35	11.70	30.00	.....	16.09	33.72
Rio Piedras.....	144.41	47.67	90.00	87.30	30.73	28.16	13.26	26.23	121.23	71.67
Sabana Grande.....	36.79	51.13	131.44	131.81	36.21	51.53	25.51	.....	4.45	16.22
Salinas.....	140.59	45.99	.....	100.00	30.23	11.01	4.46	10.00	26.59	46.62
San German.....	64.00	69.46	50.00	.....	30.61	36.59	7.16	.....	9.63	37.78
San Juan.....	.....	41.91	49.31	135.09	26.73	39.04	51.47	115.15	3,333.33	194.13
San Lorenzo.....	80.73	41.91	34.66	.....	.....	176.29	6.81	.....	2.63	16.11
San Sebastian.....	70.03	61.63	.....	.....	21.98	14.82	6.81	.....	6.90	26.97
Santa Isabel.....	118.50	.....	.....	40.00	21.34	12.94	8.30	5.00	15.61	61.45
Tos-Alta.....	103.16	52.16	150.00	.....	65.00	41.86	10.00	7.10	77.41	27.54
Tos-Baja.....	130.00	97.09	159.12	93.61	26.78	23.13	11.84	10.60	28.30	74.06
Trujillo Alto.....	80.71	54.35	137.26	94.30	63.36	58.63	25.64	19.83	33.33	20.43
Utledo.....	86.16	52.26	81.63	81.71	29.91	24.44	37.00	.....	3.99	20.83
Vega-Alta.....	145.61	48.64	.....	.....	24.63	15.95	10.17	30.00	5.73	27.84
Vega-Baja.....	121.67	48.17	200.00	149.34	22.96	21.82	13.86	13.64	13.01	37.01
Vieques.....	67.28	.....	50.00	55.00	24.79	24.16	6.90	10.86	2.00	41.67
Yabucoa.....	101.94	46.80	92.47	60.00	39.23	38.85	18.80	4.00	9.66	36.81
Yauco.....	150.20	55.06	49.90	50.00	30.03	19.67	17.63	16.71	7.68	30.46
General average.....	110.43	61.17	77.91	101.24	27.35	25.89	10.99	15.70	15.37	34.98

## EXHIBIT No. 16.

Amount and per cent of general property tax of 1 per cent remaining uncollected June 30, 1912.

Municipality.	Amount uncollected June 30, 1912, pertaining to fiscal years								Per cent uncollected June 30, 1912, pertaining to fiscal years 1901-3 to 1911-12.
	1901-2	1902-3	1903-4	1904-5	1905-6	1906-7	1907-8	1908-9	
Adjuntas	\$15.00	\$17.38	\$17.38	\$15.80	\$15.80	\$17.38			0.07
Albion				4.96					.01
Anasco									.02
Arecibo	6.12	7.81	7.79	7.51	7.77	7.93	\$7.16		.02
Barceloneta									.03
Barros	2.12	2.34	162.10	162.04					.49
Bayamon									.12
Cabo-Rojó									.01
Cayey	3.00	3.30	3.30	3.30	3.30	3.30	3.30	\$3.60	.06
Caguas									.03
Comerio									.26
Corozal	3.24	3.24		10.12	10.12	10.38	16.08	16.08	.13
Culebra				3.54	3.54	3.58	3.58	3.54	.02
Dorado									.01
Guayama									.03
Hatillo									.02
Humacao									.45
Juana Díaz	26.44	1.00	686.40	613.36		24.00	24.00	24.00	.28
Lares									.03
Las Marias									.02
Lola									.03
Manti									.03
Marcos	250.00								.28
Manabo									.03
Nayagues	198.45	39.06	42.84	9.30		9.74	9.74	9.72	.03
Negundo								9.60	.28
Pedraza	6.40	7.04	6.72					22.84	.15
Ponce								12.56	.02
Rincon								12.00	.02
Rio Piedras		3.72	18.28	16.94	4.08			9.80	.01
San Juan			263.00	232.50	247.50			141.60	.02
Sancti Spiritus	2.00	2.00	2.20	2.20				2.10	.16
Trujillo	136.24	136.04	136.02	83.06	30.14	15.63	6.63		.02
Vega Alta									.26
Vega Baja								25.32	.06
Yabucoa		66.52						11.40	.01
									.06

† Pending, less than 1 one-hundredth of 1 per cent.

## EXHIBIT No. 16A.

*Corporation property tax remaining uncollected June 30, 1908, 1909, 1910, 1911, and 1912.*

Pertaining to fiscal year—	Original charge.	1908	1909	1910	1911	1912
1907-8.....	\$182,753.30	\$2,112.66	\$1,762.28	\$158.50		
1908-9.....	275,583.88		9,674.86	1,742.09	\$1,300.40	\$1,300.40
1909-10.....	297,257.82			3,230.78	1,227.20	1,227.20
1910-11.....	293,106.45				1,663.62	1,279.62
1911-12.....	501,186.14					4,622.06
Total.....		2,112.66	11,437.14	5,131.37	4,191.22	8,429.28

Total amount of these taxes outstanding is "in litigation".....	\$8,349.60
Delinquent.....	79.68
Total.....	8,429.28

## EXHIBIT No. 17.

*Insular loans to municipalities.*

Municipality.	Date of approval of loan.	Total amount authorized and purposes for which granted.		Amount of loan received to June 30, 1912.	Amount outstanding June 30, 1912.
		Payment of indebtedness.	Public improvement.		
Fajardo.....	July 2, 1904	\$2,800.00		\$2,800.00	
Comerio.....	July 14, 1904	2,500.00		2,500.00	
Aguas Buenas.....	July 18, 1904	4,311.67		4,311.67	
Ponce.....	Sept. 9, 1904	35,000.00		35,000.00	
Vega Baja.....	Oct. 15, 1904	3,000.00		3,000.00	
Yauco.....	do.	11,772.25		11,772.25	
Sabana Grande.....	Nov. 23, 1904	3,644.27		3,644.27	
Bayamon.....	Jan. 18, 1905	6,420.72		6,420.72	
San Sebastian.....	do.	8,669.42		8,669.42	
Mayaguez.....	Mar. 18, 1905	12,000.00		12,000.00	
San Juan.....	May 11, 1905	2,500.00		2,500.00	
Vieques.....	May 18, 1905		\$3,000.00	3,000.00	
Total, fiscal year 1904-5.....		92,618.33	3,000.00	95,618.33	
Vega Alta.....	Aug. 12, 1905	1,000.00		1,000.00	
Adjuntas.....	Aug. 22, 1905	14,922.44	77.56	15,000.00	\$4,000.00
Rincon.....	Aug. 28, 1905	2,643.49		2,643.49	
Aguadilla.....	Sept. 14, 1905	5,943.79	6,066.21	12,000.00	
Naguabo.....	do.	108.81	2,891.19	3,000.00	
San Juan.....	do.		15,000.00	15,000.00	
Arroyo.....	Mar. 8, 1906		4,200.00	4,200.00	
Coamo.....	Apr. 2, 1906		2,000.00	2,000.00	
Lares.....	do.		12,000.00	12,000.00	
Juana Diaz.....	Apr. 7, 1906	1,950.03	4,049.97	6,000.00	
Patillas.....	do.		2,000.00	2,000.00	
Toa Baja.....	May 18, 1906		1,500.00	1,500.00	600.00
Aguada.....	June 16, 1906	114.16	3,885.84	4,000.00	
Albionito.....	do.	558.00	9,442.00	10,000.00	4,000.00
Maricao.....	June 25, 1906	1,088.00	5,912.00	7,000.00	
Morovis.....	do.	4,000.00		4,000.00	1,000.00
San Sebastian.....	June 26, 1906	5,500.00	4,500.00	10,000.00	
Total, fiscal year 1905-6.....		37,828.72	73,514.77	111,343.49	9,600.00
Ciales.....	July 14, 1906	5,000.00		5,000.00	
Toa Alta.....	do.	3,000.00		3,000.00	
Afasco.....	do.	10,000.00		10,000.00	
Aguas Buenas.....	July 30, 1906	5,000.00		5,000.00	2,000.00
Barros.....	do.	3,000.00		3,000.00	
Aguadilla.....	Aug. 11, 1906		2,000.00	2,000.00	
Guayanilla.....	do.		2,000.00	2,000.00	
Arroyo.....	do.		2,000.00	2,000.00	
Guayama.....	Sept. 19, 1906		16,000.00	16,000.00	8,000.00
San Lorenzo.....	do.	6,000.00		6,000.00	
Coamo.....	Sept. 20, 1906		25,000.00	25,000.00	10,000.00
Yabucoa.....	Sept. 25, 1906		20,000.00	19,600.00	7,600.00



*Insular loans to municipalities—Continued.*

Municipality.	Date of approval of loan.	Total amount authorized and purposes for which granted.		Amount of loan received to June 30, 1912.	Amount outstanding June 30, 1912.
		Payment of indebtedness.	Public improvement.		
Manati.....	Sept. 25, 1906	\$7,000.00	—	\$7,000.00	—
Comerio.....	Oct. 16, 1906	—	\$750.00	750.00	—
Bayamon.....	Oct. 27, 1906	—	20,000.00	15,084.38	\$3,084.38
Humacao.....	Dec. 28, 1906	2,270.44	—	2,270.44	—
Cabo Rojo.....	do.	—	12,000.00	12,000.00	4,963.59
Caguas.....	Mar. 9, 1907	—	60,000.00	60,000.00	30,000.00
San Juan.....	Apr. 9, 1907	—	52,000.00	52,000.00	14,857.14
Lajas.....	do.	—	6,000.00	6,000.00	1,000.00
Cidra.....	do.	—	2,750.00	2,750.00	687.50
Mayaguez.....	Apr. 16, 1907	1,400.00	—	1,400.00	—
Bayamon.....	May 8, 1907	—	10,000.00	10,000.00	5,000.00
Patillas.....	May 21, 1907	—	4,000.00	4,000.00	666.66
Vega Baja.....	May 31, 1907	—	5,000.00	5,000.00	1,630.36
Toa Alta.....	do.	—	1,000.00	1,000.00	—
Las Marias.....	do.	—	7,000.00	7,000.00	3,628.91
Mayaguez.....	June 10, 1907	23,000.00	12,000.00	35,000.00	7,000.00
Juana Diaz.....	do.	—	10,000.00	10,000.00	2,600.86
Total, fiscal year 1906-7.....		65,670.44	269,500.00	329,854.82	102,708.42
Dorado.....	July 26, 1907	—	6,000.00	6,000.00	3,600.00
Salinas.....	do.	—	10,700.00	10,700.00	1,753.34
Aguadilla.....	do.	—	7,000.00	7,000.00	3,865.43
Santa Isabel.....	do.	—	5,000.00	5,000.00	—
Do.....	Aug. 12, 1907	—	10,000.00	10,000.00	5,000.00
San German.....	do.	—	12,000.00	12,000.00	6,000.00
Agua Buenas.....	Sept. 3, 1907	—	500.00	500.00	—
Cabo Rojo.....	Sept. 6, 1907	—	2,000.00	2,000.00	2,000.00
Naguabo.....	do.	—	2,000.00	2,000.00	—
Ponce.....	do.	14,000.00	50,000.00	64,000.00	38,200.00
Caguas.....	Nov. 5, 1907	—	4,000.00	4,000.00	—
Fajardo.....	do.	—	6,000.00	—	—
Coamo.....	Dec. 4, 1907	—	5,000.00	5,000.00	2,500.00
Loiza.....	do.	—	16,000.00	16,000.00	9,600.00
San Juan.....	Dec. 7, 1907	—	22,000.00	16,000.00	—
Cayey.....	Dec. 21, 1907	—	35,516.13	35,516.13	24,861.30
Albionito.....	Dec. 30, 1907	—	3,000.00	3,000.00	1,800.00
Arecibo.....	Feb. 7, 1908	—	10,000.00	9,983.92	5,983.92
Gurabo.....	do.	—	308.22	308.22	—
Vieques.....	Feb. 20, 1908	—	1,250.00	1,250.00	—
Hatillo.....	Feb. 28, 1908	—	1,000.00	1,000.00	—
Do.....	Mar. 24, 1908	—	1,000.00	1,000.00	—
Arecibo.....	do.	—	1,500.00	1,500.00	—
Do.....	do.	—	1,500.00	1,500.00	—
Quebradillas.....	do.	—	250.00	250.00	—
Do.....	do.	—	250.00	250.00	—
Patillas.....	do.	—	1,000.00	1,000.00	200.00
Caguas.....	Mar. 28, 1908	750.00	—	750.00	—
Camuy.....	Apr. 20, 1908	—	750.00	750.00	—
Do.....	do.	—	750.00	750.00	—
Rio Piedras.....	Apr. 24, 1908	—	500.00	500.00	—
Toa Alta.....	May 28, 1908	—	1,000.00	1,000.00	600.00
San Sebastian.....	June 12, 1908	—	3,000.00	3,000.00	1,551.91
Moca.....	June 27, 1908	—	1,400.00	1,400.00	—
Total, fiscal year 1907-8.....		14,750.00	222,174.35	224,908.27	104,546.90
Utuado.....	Oct. 20, 1908	—	27,300.00	27,300.00	20,491.85
San Juan.....	Dec. 7, 1908	—	25,000.00	25,000.00	14,000.00
Total, fiscal year 1908-9.....		—	52,300.00	52,300.00	34,491.85
Juncos.....	Aug. 26, 1909	—	3,000.00	3,000.00	—
San German.....	Mar. 31, 1910	—	4,500.00	4,500.00	1,594.77
Total, fiscal year 1909-10.....		—	7,500.00	7,500.00	1,594.77
Mayaguez.....	Nov. 11, 1910	—	9,500.00	—	—
San Juan.....	Jan. 30, 1911	—	5,000.00	5,000.00	—
Total, fiscal year 1910-11.....		—	14,500.00	5,000.00	—
Moca.....	July 14, 1911	—	500.00	500.00	—
San Lorenzo.....	Sept. 18, 1911	—	1,200.00	1,200.00	1,199.00
Sabana Grande.....	do.	—	1,000.00	—	—
Camuy.....	Oct. 23, 1911	—	1,000.00	1,000.00	1,000.00

*Insular loans to municipalities—Continued.*

Municipality.	Date of approval of loan.	Total amount authorized and purposes for which granted.		Amount of loan received to June 30, 1912.	Amount outstanding June 30, 1912.
		Payment of indebtedness.	Public improvement.		
Mayaguez.....	Nov. 13, 1911	.....	\$2,000.00	\$2,000.00	\$2,000.00
Ponce.....	Dec. 7, 1911	.....	75,000.00	27,000.00	16,000.00
Yauco.....	Jan. 10, 1912	.....	20,000.00	12,000.00	12,000.00
San Juan.....	Apr. 30, 1912	.....	70,000.00	.....	.....
Juncos.....	May 20, 1912	.....	7,628.00	.....	.....
Humacao.....	..... do .....	.....	60,000.00	.....	.....
Isabela.....	June 7, 1912	.....	3,000.00	.....	.....
Total, fiscal year 1911-12.....	.....	.....	241,328.00	43,700.00	32,199.00
Total, fiscal years 1904-5 to 1911-12.....	.....	\$210,867.49	883,817.12	870,224.91	285,140.94

## EXHIBIT No. 17A.

*Insular loans to school boards.*

Municipality.	Date of approval of loan.	Total amount authorized and purposes for which granted.		Amount of loan received to June 30, 1912.	Amount outstanding June 30, 1912.
		Payment of indebtedness.	Public improvement.		
Adjuntas.....	July 2, 1904	\$980.00	.....	\$980.00	.....
Aguada.....	..... do .....	408.00	.....	408.00	.....
Aguadilla.....	..... do .....	750.00	.....	750.00	.....
Aguas Buenas.....	..... do .....	355.00	.....	355.00	.....
Anasco.....	..... do .....	806.00	.....	806.00	.....
Arecibo.....	..... do .....	1,411.00	.....	1,411.00	.....
Barros.....	..... do .....	348.00	.....	348.00	.....
Bayamon.....	..... do .....	672.00	.....	672.00	.....
Camuy.....	..... do .....	1,000.00	.....	1,000.00	.....
Cayey.....	..... do .....	734.00	.....	734.00	.....
Ciales.....	..... do .....	323.33	.....	323.33	.....
Comerio.....	..... do .....	925.00	.....	925.00	.....
Fajardo.....	..... do .....	182.00	.....	182.00	.....
Lajas.....	..... do .....	550.00	.....	550.00	.....
Las Marias.....	..... do .....	675.00	.....	675.00	.....
Maricao.....	..... do .....	216.00	.....	216.00	.....
Mayaguez.....	..... do .....	3,680.00	.....	3,680.00	.....
Morovis.....	..... do .....	600.00	.....	600.00	.....
Naguabo.....	..... do .....	492.00	.....	492.00	.....
Patillas.....	..... do .....	394.00	.....	394.00	.....
Ponce.....	..... do .....	1,000.00	.....	1,000.00	.....
Sabana Grande.....	..... do .....	425.00	.....	425.00	.....
San Lorenzo.....	..... do .....	800.00	.....	800.00	.....
Utado.....	..... do .....	862.00	.....	862.00	.....
Vega Baja.....	..... do .....	208.00	.....	208.00	.....
Manati.....	Sept. 24, 1904	700.00	.....	700.00	.....
Total, fiscal year 1904-5.....	.....	19,496.33	.....	19,496.33	.....
Aguada.....	Aug. 22, 1905	.....	\$1,000.00	1,000.00	.....
Arecibo.....	Aug. 28, 1905	196.00	900.00	1,096.00	.....
Aguadilla.....	Sept. 14, 1905	1,500.00	.....	1,500.00	.....
Camuy.....	..... do .....	.....	3,000.00	3,000.00	.....
Hatillo.....	..... do .....	.....	3,000.00	3,000.00	.....
Anasco.....	..... do .....	2,000.00	.....	2,000.00	.....
Sabana Grande.....	Oct. 3, 1905	1,200.00	.....	1,200.00	\$820.00
San German.....	..... do .....	.....	2,000.00	2,000.00	.....
Manati.....	..... do .....	.....	1,200.00	1,200.00	.....
Lares.....	Oct. 9, 1905	.....	5,000.00	5,000.00	.....
Rio Piedras.....	Mar. 26, 1906	.....	3,500.00	3,500.00	875.00
Coamo.....	..... do .....	.....	6,000.00	6,000.00	2,400.00
Naguabo.....	Apr. 2, 1906	.....	.....	.....	.....
San Juan.....	Apr. 9, 1906	1,000.00	.....	1,000.00	.....
Ton Baja.....	May 18, 1906	.....	1,500.00	1,500.00	600.00
Arroyo.....	June 5, 1906	.....	4,000.00	4,000.00	222.23
Total, fiscal year 1905-6.....	.....	5,896.00	31,100.00	36,996.00	4,417.23

*Insular loans to school boards—Continued.*

Municipality.	Date of approval of loan.	Total amount authorized and purposes for which granted.		Amount of loan received to June 30, 1912.	Amount outstanding June 30, 1912.
		Payment of indebtedness.	Public improvement.		
Patillas.....	Aug. 11, 1906		\$1,000.00	\$1,000.00	\$400.00
Humacao.....	do.....	\$750.00		750.00	
Bayamon.....	Aug. 17, 1906		1,000.00	1,000.00	
Salinas.....	Aug. 25, 1906		8,000.00	8,000.00	2,000.00
Juana Diaz.....	Oct. 1, 1906		6,000.00	6,000.00	
Isabela.....	do.....	300.00		300.00	
Guayama.....	Oct. 24, 1906		5,000.00	5,000.00	1,000.00
Lajas.....	Feb. 25, 1907		6,000.00	5,230.40	1,897.08
San German.....	Mar. 9, 1907		1,200.00	1,200.00	400.00
Yauco.....	do.....		8,000.00	8,000.00	3,000.00
Ponce.....	Apr. 9, 1907		50,000.00	50,000.00	
San Juan.....	May 9, 1907		48,000.00	48,000.00	16,000.00
Santa Isabel.....	June 17, 1907		5,000.00	5,000.00	
Total, fiscal year 1906-7.....		1,050.00	139,200.00	139,480.40	24,697.08
Fajardo.....	July 2, 1907		12,000.00	12,000.00	6,000.00
Carolina.....	Aug. 23, 1907		200.00	200.00	
Mayaguez.....	do.....		1,400.00	1,400.00	
Pedernales.....	Mar. 7, 1908		3,500.00	2,250.00	850.00
San Juan.....	June 27, 1908		12,200.00	12,200.00	6,971.42
Total, fiscal year 1907-8.....			29,300.00	28,050.00	13,821.42
Arroyo.....	July 13, 1908		1,000.00	1,000.00	1,000.00
Cabo Rojo.....	do.....		6,000.00		
Manati.....	do.....		6,000.00	6,000.00	4,200.00
Caguas.....	do.....		8,000.00	8,000.00	4,800.00
Arecibo.....	July 18, 1908		30,000.00	30,000.00	21,000.00
Añasco.....	Nov. 20, 1908		1,000.00	997.70	397.70
San Juan.....	Apr. 1, 1909		13,000.00	13,000.00	9,100.00
Total, fiscal year 1908-9.....			65,000.00	58,997.70	40,497.70
Naranjito.....	July 19, 1910		2,000.00	2,000.00	1,733.29
Total, fiscal year 1910-11.....			2,000.00	2,000.00	1,733.29
Total, fiscal years 1904-5 to 1911-12.....		26,442.33	266,800.00	285,020.43	85,168.72

## EXHIBIT No. 18.

*Gross receipts of municipalities, detailed by sources and destination, fiscal year ending June 30, 1912.*

Items.	Total.	Ordinary funds.	Road funds.	Bond redemption and sinking funds.	On account of debt.
Total.....	\$1,946,605.81	\$1,640,808.99	\$109,230.87	\$159,963.53	\$36,562.42
General revenues, \$1,638,694.11:					
Taxes.....	1,265,907.14				
Property taxes.....	1,240,744.88	980,881.23	109,230.87	151,132.78	
Tax on slaughter and sale of meat.....	125,162.26	125,162.26			
Licenses and permits.....	224,127.04				
Business licenses.....	207,520.65	207,520.65			
Dog and other licenses.....	136.00	136.00			
Permits.....	16,470.39	16,470.39			
Fines.....	24,520.73	24,520.73			
Subventions, grants, and gifts.....	8,114.96	8,114.96			
Miscellaneous.....	16,024.24	16,024.24			

*Gross receipts of municipalities, detailed by sources and destination, fiscal year ending June 30, 1912—Continued.*

Items.	Total.	Ordinary funds.	Road funds.	Bond redemption and sinking funds.	On account of debt.
Commercial revenues, \$307,911.70:					
Department services .....	\$45,012.99				
Maintenance of insular prisoners .....	15,272.44	\$15,272.44			
Transportation of patients to asylums .....	163.10	163.10			
Fees and charges .....	13,181.00	13,181.00			
Rents .....	10,953.19	10,953.19			
Sales .....	5,443.26	5,443.26			
Privileges .....	2,482.83	2,482.83			
Interest .....	14,175.22	5,324.47		\$8,850.75	
Public-service enterprises .....	209,658.24				
Water-supply system .....	140,419.06	140,419.06			
Electric light system .....	8,948.60	8,948.60			
Markets .....	32,495.00	32,495.00			
Slaughterhouses .....	3,336.45	3,336.45			
Meat shops .....	6,100.40	6,100.40			
Animal pounds .....	7,933.24	7,933.24			
Cemeteries .....	6,414.96	6,414.96			
Theaters .....	3,202.97	3,202.97			
Others .....	807.56	807.56			
Receipts on account of debt .....	36,582.42				\$36,582.42
Total current receipts .....	1,946,605.81	1,640,808.99	\$109,230.87	159,963.53	36,582.42
Cash on hand June 30, 1911 .....	1,234,647.49	242,970.07	42,189.47	738,574.01	210,912.94
Total available for expenditure .....	3,181,253.30	1,883,779.06	151,420.34	898,557.54	247,495.36
Total expenditure during year .....	2,478,244.91	1,512,350.38	93,777.96	813,942.00	58,174.57
Cash on hand June 30, 1912 .....	703,008.39	371,428.68	57,642.38	84,615.54	199,321.79

## EXHIBIT No. 19.

*Detailed expenditures of municipalities, fiscal year ending June 30, 1912.*

Department or service.	Expenses.			Interest.	Outlays.	On account of debt.
	Total.	Salaries.	Other.			
Total, \$2,478,244.91 .....	\$1,365,794.36	\$5,381,125.38	\$827,368.98	\$62,618.05	\$166,554.24	\$383,278.26
General Government .....	348,334.56	260,541.69	87,792.87	1,635.07	19,302.19	4,727.24
Executive and finance offices .....	234,002.57	200,641.81	33,360.76		8,314.95	2,084.08
Legal services and costs .....	5,924.18	3,495.00	2,429.18			150.00
Municipal buildings .....	44,585.73	6,419.38	38,166.35	1,635.07	8,524.24	2,278.54
Courts .....	34,746.78	33,844.37	902.41		8.00	103.35
Civil register .....	15,893.01	15,031.13	861.88			62.69
Traveling expenses .....	13,182.29	1,110.00	12,072.29		2,455.00	48.57
Protection of life and property, fire department .....	21,872.13	6,132.24	15,739.89		3,337.37	
Health conservation and sanitation .....	193,989.16	772.50	193,216.66		7,447.19	393.60
Supervision and inspection .....	190,081.05		190,081.05			178.00
Anemia service .....	180.50	172.50	8.00			51.75
Sewers and sewage disposal .....	152.75		152.75		7,121.36	
Street cleaning and refuse disposal .....	106.05		106.05			103.85
Miscellaneous .....	3,513.81	600.00	2,913.81		325.58	60.00

*Detailed expenditures of municipalities, fiscal year ending June 30, 1912—Continued.*

Department or service.	Expenses.			Interest.	Outlays.	On account of debt.
	Total.	Salaries.	Other.			
Highways.....	\$308,792.04	\$29,061.49	\$279,730.55	\$712.44	\$61,145.08	\$22,496.00
Streets, sidewalks, and plazas.....	109,682.75	21,189.15	88,493.60	82.74	42,097.61	14,552.11
Street sprinkling.....	128,253.56	3,942.84	124,311.22		10,028.72	951.94
Street lighting.....	70,855.73	3,930.00	66,925.73	659.70	9,018.75	7,012.55
Vicinal and rural roads.....						
Charities and corrections...	364,361.18	179,731.48	184,629.70		23,006.59	5,838.12
Outdoor poor relief.....	87,321.53	76,995.38	10,326.15			41.45
Medicines.....	65,638.02	11,900.05	53,738.57		263.46	3,794.81
Poor in institutions.....	13,414.54	2,581.97	10,832.57			3.25
Miscellaneous charities.....	9,613.49	1,644.47	7,969.02		3,504.77	102.73
Hospital and relief stations.....	146,277.49	68,120.35	78,157.14		19,211.49	1,905.85
Jails.....	42,095.51	18,499.26	23,600.25		26.87	60.00
Education.....	4,794.91	3,367.33	1,427.58		212.27	1,139.09
Scholarships.....	360.00		360.00			
Libraries.....	4,102.10	3,367.33	734.77		212.27	
Miscellaneous.....	332.81		332.81			1,139.09
Recreation.....	12,772.59	7,268.08	5,504.51		880.28	90.00
Playgrounds.....						
Music.....	9,280.24	6,877.08	2,403.16		880.28	90.00
Bath, bathhouses, etc.	891.00	891.00				
Celebrations and enter- tainments.....	2,601.35		2,601.35			
Miscellaneous.....	18,235.25		18,235.25	60,240.86	2,092.39	844,999.21
Public-service enterprises...	92,642.54	51,550.57	41,091.97	29.68	49,130.88	3,594.49
Water-supply systems.....	45,707.59	20,907.75	24,799.84		3,185.61	1,080.00
Electric light systems.....	4,360.27	2,514.50	1,845.77		5,273.31	
Markets.....	6,345.69	4,487.15	1,858.54		1,835.86	
Slaughterhouses.....	7,653.37	3,531.67	4,121.70		14,599.51	2,319.05
Meat shops.....	5,957.55	5,098.50	899.05		1,990.10	48.37
Animal pounds.....	60.73	43.00	17.73			5.00
Cemetery.....	19,103.39	14,195.50	4,907.89		6,614.06	128.98
Theater.....	3,290.47	777.50	2,512.97	29.68	445.28	
Others.....	163.48		163.48		15,246.55	

## EXHIBIT No. 20.

*Per cent distribution of expenditures by municipalities.*

	1911-12	Increase, 1910-11.	Decrease 1910-11.
Expenses.....	80.05	3.49	
General Government.....	20.42		0.62
Executive and finance offices.....	13.72		.91
Legal services and costs.....	.35		
Municipal buildings.....	2.61	.67	
Courts.....	2.04		.28
Civil register.....	.93		.11
Traveling expenses.....	.77	.01	
Protection of life and property, fire department.....	1.28		.12
Health conservation and sanitation.....	11.37	1.86	
Supervision and inspection.....	11.14	6.81	
Anemia service.....	.01		.20
Sewers and sewage disposal.....	.01		.21
Street cleaning and refuse disposal.....	.01		4.34
Miscellaneous.....	.20		.20

*Per cent distribution of expenditures by municipalities—Continued.*

	1911-12.	Increase 1910-11.	Decrease 1910-11.
Expenses—Continued.			
Highways.....	18.10	0.50	.....
Streets, sidewalks, and plazas.....	6.43	.82	.....
Street sprinkling.....	.....	.....	0.14
Street lighting.....	7.62	.....	.01
Vicinal and rural roads.....	4.15	.....	.17
Charities and correction.....	21.36	.70	.....
Outdoor poor relief.....	5.12	1.04	.....
Medicines.....	3.85	.....	.40
Poor in institutions.....	.79	.....	.15
Miscellaneous charities.....	.56	.32	.....
Hospital and relief stations.....	8.67	.....	.12
Jails.....	2.47	.01	.....
Education.....	.28	.....	.05
Scholarships.....	.02	.....	.02
Libraries.....	.24	.....	.02
Miscellaneous.....	.02	.....	.01
Recreation.....	.75	.....	.08
Music.....	.55	.....	.06
Bath, bathhouses, etc.....	.05	.....	.01
Celebrations and entertainments.....	.15	.....	.01
Miscellaneous.....	1.06	.69	.....
Public-service enterprises.....	5.43	.61	.....
Water-supply system.....	2.68	.....	.02
Electric-light system.....	.25	.....	.02
Market.....	.37	.08	.....
Slaughterhouse.....	.45	.26	.....
Meat shops.....	.35	.17	.....
Animal pounds.....	.01	.....	.09
Cemetery.....	1.12	.08	.....
Theater.....	.19	.14	.....
Others.....	.01	.01	.....
Interest.....	3.67	.....	1.40
Outlays.....	9.76	.....	1.39
On account of debt.....	6.62	.....	.70

## EXHIBIT No. 21.

*Receipts and payments on account of water-supply systems maintained by the municipalities during fiscal year ending June 30, 1912.*

Municipalities.	Receipts.	Payments.	
		For expenses.	For outlays.
Total.....	\$140,419.06	\$36,777.13	\$2,755.21
Aibonito.....	1,734.76	127.30	.....
Arecibo.....	5,862.14	2,884.16	1,809.16
Caguas.....	5,992.48	974.39	.....
Cayey.....	4,041.94	510.00	33.90
Coamo.....	3,072.24	470.85	.....
Guayama.....	3,107.45	400.00	.....
Juana Diaz.....	51.00	226.20	.....
Mayaguez.....	11,107.58	1,784.99	.....
Patillas.....	271.35	59.79	.....
Ponce.....	15,441.45	2,454.22	.....
Salinas.....	279.00	509.76	63.00
San Juan.....	86,896.65	25,240.15	.....
Utua.....	1,175.77	335.75	808.15
Yabucoa.....	1,386.25	799.57	41.40

The apparent discrepancy between the second and third columns and those shown in the general statement of expenditures (Exhibit No. 19) is due to the fact that the former do not include amounts expended by various municipalities in the preparation of plans, etc.

The above table includes only those municipalities which already possess a water system.

## EXHIBIT No. 22.

*Receipts and expenditures fiscal year ending June 30, 1912, cash on hand at beginning and end of year and outstanding indebtedness, by municipalities.*

Municipalities.	Cash on hand at beginning of year.	Receipts.	Total available for expenditure.	Expenditures.	Cash on hand at end of year.	Total indebtedness.
<b>Grand total.....</b>	<b>\$1,234,647.49</b>	<b>\$1,946,606.81</b>	<b>\$3,181,253.30</b>	<b>\$2,478,244.91</b>	<b>\$703,008.39</b>	<b>\$662,982.88</b>
Adjuntas.....	1,661.06	11,336.26	12,997.31	11,793.65	1,203.66	4,575.75
Aguada.....	3,452.18	13,607.76	17,059.92	10,035.87	7,024.05	45.00
Aguadilla.....	4,294.75	21,786.36	26,081.11	19,130.31	6,950.80	4,385.14
Aguas Buenas.....	763.06	5,480.26	6,243.31	5,200.79	1,042.52	2,000.00
Albionito.....	909.81	10,426.90	11,336.71	8,966.91	2,369.80	6,100.00
Añasco.....	322.01	13,252.20	13,574.21	12,903.91	670.30	1,227.61
<b>Arecibo.....</b>	<b>85,019.99</b>	<b>104,463.04</b>	<b>189,483.03</b>	<b>155,171.38</b>	<b>34,311.65</b>	<b>31,451.55</b>
General fund.....	18,214.44	82,483.90	100,698.34	85,153.01	15,545.33	.....
Road fund.....	3,533.02	5,606.27	9,139.29	2,906.37	6,232.92	.....
Insular advances.....	1,001.03	.....	1,001.03	.....	1,001.03	.....
Bond-redemption tax and sinking fund.....	62,271.50	16,372.87	78,644.37	67,112.00	11,532.37	.....
Arroyo.....	1,747.82	13,487.14	15,234.96	11,973.53	3,261.43	.....
Barceloneta.....	.....	20,470.00	20,470.00	12,638.14	7,831.86	191.23
Barranquitas.....	871.26	4,908.50	5,779.76	4,062.20	1,717.56	173.56
Barros.....	636.47	5,819.47	6,455.94	5,104.33	1,351.61	147.00
Bayamon.....	6,636.98	41,023.61	47,660.59	38,106.46	9,552.13	8,084.38
Cabo Rojo.....	3,070.14	14,341.14	17,411.28	13,117.84	4,293.44	10,453.59
Caguas.....	5,404.12	48,662.52	53,966.64	42,702.19	11,264.45	31,660.12
Camuy.....	1,014.21	14,577.24	15,591.45	7,656.54	7,934.91	1,177.40
Carolina.....	9,103.33	17,052.92	26,156.25	18,896.52	7,259.73	.....
Cayey.....	1,904.55	24,265.69	26,170.24	20,531.42	5,638.82	24,899.30
Ciales.....	2,630.04	11,600.55	14,230.59	10,331.45	3,899.14	150.00
Cidra.....	987.52	5,981.03	6,968.55	5,702.84	1,265.71	699.50
Coamo.....	1,044.46	16,426.51	17,470.97	15,226.47	2,244.50	13,300.00
Comerio.....	1,548.17	9,887.49	11,435.66	9,128.24	2,307.42	205.24
Corozal.....	791.66	5,714.49	6,506.15	3,388.26	2,517.89	.....
Dorado.....	2,822.47	7,501.51	10,323.98	6,498.77	3,825.21	3,600.00
Fajardo.....	12,701.37	30,751.00	43,452.97	41,549.56	1,903.41	1,110.38
Guayama.....	8,132.48	42,090.36	50,222.83	37,467.70	12,755.13	9,716.00
Guayanilla.....	2,336.09	9,978.67	12,314.76	8,003.92	4,310.84	.....
Gurabo.....	4,655.34	12,211.19	16,866.53	11,408.54	5,457.99	203.44
Hatillo.....	853.87	9,396.05	10,251.82	6,844.03	3,407.79	.....
Humacao.....	18,282.31	46,749.28	65,031.59	42,915.08	22,116.51	.....
Isabela.....	425.28	9,485.50	9,910.76	7,996.39	1,914.37	.....
Jayuya.....	.....	7,041.97	7,041.97	4,955.00	2,086.97	.....
Juana Diaz.....	2,666.76	27,328.37	29,995.13	24,345.74	5,649.39	2,666.86
Juncos.....	5,628.92	20,438.56	26,067.48	21,295.87	4,771.61	350.00
Lajas.....	4,249.92	10,774.17	15,024.09	12,063.44	2,960.65	1,000.00
Lares.....	1,221.72	14,842.99	16,064.71	13,914.36	2,150.35	824.75
Las Marias.....	1,427.48	10,684.77	12,112.25	9,272.25	2,840.00	3,628.91
Lolita.....	7,237.75	17,995.31	25,233.06	21,038.74	4,194.32	9,600.00
Manati.....	5,720.87	24,408.60	33,129.47	23,000.99	10,128.48	425.26
Maricao.....	1,076.03	8,907.27	9,983.30	8,388.21	1,594.09	800.00
Maunabo.....	854.20	6,418.70	7,272.90	5,908.15	1,364.75	.....
<b>Mayaguez.....</b>	<b>271,573.58</b>	<b>123,654.94</b>	<b>405,228.52</b>	<b>259,057.80</b>	<b>146,170.72</b>	<b>21,194.25</b>
General fund.....	6,918.67	93,036.55	99,955.22	73,939.93	26,015.29	.....
Road fund.....	724.96	5,229.32	5,954.28	4,627.36	1,326.92	.....
Insular advances.....	927.17	2,000.00	2,927.17	2,716.30	210.87	.....
Bond loan of 1902.....	100,257.49	962.64	101,210.13	1,774.21	99,435.92	.....
Bond-redemption tax and sinking fund.....	162,745.29	32,436.43	195,181.72	176,000.00	19,181.72	.....
Moca.....	374.38	6,878.92	7,253.30	5,324.04	1,929.26	670.00
Morovis.....	914.28	6,572.71	7,486.99	5,597.82	1,889.17	1,000.00
Naguabo.....	1,630.83	19,514.75	21,145.58	17,159.11	3,986.47	.....
Naranjito.....	398.94	3,827.07	4,226.01	2,954.68	1,271.33	273.58
Pailas.....	1,683.32	12,521.43	14,204.75	10,862.78	3,341.97	866.69
Pedernales.....	745.60	8,761.01	9,506.61	5,691.06	3,815.55	500.00
<b>Ponce.....</b>	<b>165,374.56</b>	<b>207,256.12</b>	<b>372,629.68</b>	<b>324,304.40</b>	<b>48,325.28</b>	<b>102,412.58</b>
General fund.....	6,275.02	151,536.67	157,811.69	149,979.07	7,832.62	.....
Road fund.....	2,606.72	9,271.63	11,878.35	7,968.76	3,909.59	.....
Insular advances.....	.....	16,000.00	16,000.00	15,246.55	753.45	.....
Bond loan of 1902.....	27,602.44	2,629.78	30,232.22	7,190.02	23,042.20	.....
Bond-redemption tax and sinking fund.....	128,890.38	27,817.04	156,707.42	142,920.00	12,787.42	.....

*Receipts and expenditures fiscal year ending June 30, 1912, cash on hand at beginning and end of year and outstanding indebtedness, by municipalities—Continued.*

Municipalities.	Cash on hand at beginning of year.	Receipts.	Total available for expenditure.	Expenditures.	Cash on hand at end of year.	Total indebtedness.
Quebradillas.....	\$1,231.16	\$6,448.14	\$7,679.30	\$4,472.61	\$3,206.69	.....
Rincon.....	614.83	5,462.96	6,077.78	4,132.59	1,945.19	.....
Rio Grande.....	3,190.30	15,468.00	18,658.30	11,746.06	6,912.25	.....
Rio Piedras.....	8,982.04	33,228.74	42,210.78	28,563.78	13,647.00	\$150.00
Sebana Grande.....	914.63	7,082.11	7,946.74	6,624.57	1,322.17	406.00
Salinas.....	3,953.27	26,319.84	30,273.11	21,158.13	9,114.98	1,983.34
San German.....	1,726.11	25,834.99	27,561.10	20,104.56	7,456.54	7,808.29
San Juan.....	512,690.52	452,416.10	965,106.62	796,224.28	169,881.34	190,468.07
General fund.....	52,630.87	357,094.40	409,725.27	342,980.88	66,744.39	.....
Road fund.....	2,870.57	11,663.51	14,534.08	12,827.23	1,706.85	.....
Insular advances.....	.....	300.00	300.00	300.00	.....	.....
Bond loan of 1902.....	72,522.24	.....	72,522.24	12,206.17	60,316.07	.....
Bond-redemption tax and sinking fund.....	384,666.84	53,357.19	468,024.03	426,910.00	41,114.03	.....
San Lorenzo.....	2,051.66	10,697.35	12,749.01	10,335.01	2,414.00	1,199.00
San Sebastian.....	1,060.86	10,364.98	11,425.84	9,693.88	1,731.96	1,551.91
Santa Isabel.....	2,392.41	18,803.74	21,196.15	17,322.06	3,874.07	5,470.00
Toa Alta.....	299.57	6,631.35	6,930.92	4,695.14	2,235.78	600.00
Toa Baja.....	2,660.84	13,204.92	15,865.76	11,559.38	4,306.38	600.00
Trujillo Alto.....	2,065.56	6,590.86	8,656.42	4,836.44	3,819.98	.....
Utuado.....	11,819.03	23,584.50	35,403.53	26,693.64	8,709.89	20,491.85
Vega Alta.....	850.96	8,551.96	9,402.92	7,227.06	2,175.84	227.00
Vega Baja.....	1,503.95	16,755.46	18,259.41	12,179.61	6,079.80	1,630.36
Vieques.....	8,116.71	23,517.96	31,634.67	24,486.70	7,147.97	.....
Yabucoa.....	4,780.72	24,430.90	29,211.62	23,831.56	5,380.06	7,600.00
Yauco.....	2,939.46	60,800.19	64,739.65	53,138.14	11,601.51	12,000.00

<sup>1</sup> \$69,900.38 on deposit with J. M. Ceballos & Co., New York, and in process of liquidation since 1906.

<sup>2</sup> \$19,962.11 on deposit with J. M. Ceballos & Co., New York, and in process of liquidation since 1906.

<sup>3</sup> \$50,765.58 on deposit with J. M. Ceballos & Co., New York, and in process of liquidation since 1906.



## EXHIBIT No. 23.

*Outstanding indebtedness, detailed by municipalities, June 30, 1912.*

Municipalities.	Indebtedness, fixed.				
	Total.	Floating.	Current.	To insular Government and trust fund.	Others.
Grand total.....	\$562,982.88	\$1,298.58	\$29,453.66	\$285,140.94	\$247,089.70
Adjuntas.....	4,575.75		575.75	4,000.00	
Aguada.....	45.00		45.00		
Aguadilla.....	4,385.14		519.71	3,865.43	
Agua Buenas.....	2,000.00			2,000.00	
Albionito.....	6,100.00		800.00	5,300.00	
Añasco.....	1,227.61	188.20	1,039.41		
Arecibo <sup>1</sup> .....	31,451.55			5,963.92	25,487.63
Barceloneta.....	191.23		191.23		
Barranquitas.....	173.56		173.56		
Barros.....	147.00		147.00		
Bayamon.....	8,084.38			8,084.38	
Cabo Rojo <sup>2</sup> .....	10,453.59			6,653.59	3,800.00
Caguas.....	31,660.12		1,660.12	30,000.00	
Camuy.....	1,177.40		177.40	1,000.00	
Cayey.....	24,899.30		85.00	24,814.30	
Ciales.....	150.00		150.00		
Cidra.....	699.50		12.00	687.50	
Coamo.....	13,300.00		800.00	12,500.00	
Comerio <sup>3</sup> .....	205.24				205.24
Dorado.....	3,600.00			3,600.00	
Fajardo.....	1,110.38	1,110.38			
Guayama.....	9,716.00		1,716.00	8,000.00	
Gurabo.....	203.44		203.44		
Juana Diaz.....	2,085.86		95.00	2,000.86	
Juncos.....	350.00		350.00		
Lajas.....	1,000.00			1,000.00	
Lares.....	824.75		824.75		
Las Marias.....	3,628.91			3,628.91	
Lolita.....	9,600.00			9,600.00	
Manati.....	425.26		425.26		
Maricao.....	800.00		800.00		
Mayaguez <sup>4</sup> .....	21,194.25		1,375.97	9,000.00	10,818.28
Moca.....	670.00		670.00		
Morovis.....	1,000.00			1,000.00	
Naranjito.....	273.58		273.58		
Patillas.....	866.68			866.68	
Peñuelas.....	500.00		500.00		
Ponce <sup>5</sup> .....	102,412.58			51,200.00	51,212.58
Rio Piedras.....	150.00		150.00		
Sabana Grande.....	405.00		405.00		
Salinas.....	1,983.34		200.00	1,783.34	
San German.....	7,808.29		212.52	7,595.77	
San Juan <sup>6</sup> .....	199,468.07		14,724.96	28,557.14	165,885.97
San Lorenzo.....	1,199.00			1,199.00	
San Sebastian.....	1,551.91			1,551.91	
Santa Isabel.....	5,470.00		470.00	5,000.00	
Toa Alta.....	600.00			600.00	
Toa Baja.....	600.00			600.00	
Utusado.....	20,491.85			20,491.85	
Vega Alta.....	227.00		227.00		
Vega Baja.....	1,630.36			1,630.36	
Yabucoa.....	7,600.00			7,600.00	
Yauco.....	12,000.00			12,000.00	

<sup>1</sup> Bonds issued, \$100,000; bonds redeemed, \$63,000; outstanding bonds, \$37,000, less sum of sinking fund, \$3.63, and bond-redemption tax collections, \$11,528.74.

<sup>2</sup> Purchase of school house, payable in 10 annual installments.

<sup>3</sup> Debt to Caguas, balance payable during 1912-13.

<sup>4</sup> Bonds issued, \$200,000; bonds redeemed, \$170,000; outstanding bonds, \$30,000, less sum of sinking fund, \$312.73, and bond-redemption tax collections, \$18,868.99.

<sup>5</sup> Bonds issued, \$200,000; bonds redeemed, \$136,000; outstanding bonds, \$64,000, less bond-redemption tax collections, \$12,787.42.

<sup>6</sup> Bonds issued, \$600,000; bonds redeemed, \$403,000; outstanding bonds, \$197,000, less bond-redemption tax collections, \$41,114.03.

## APPENDIX IV.

### REPORT OF THE COMMISSIONER OF THE INTERIOR.

OFFICE OF THE COMMISSIONER OF THE INTERIOR,  
San Juan, P. R., August 26, 1912.

SIR: I have the honor to submit the following report of the operations of the department of the interior during the fiscal year ending June 30, 1912:

#### BUREAU OF PUBLIC WORKS.

Work in charge of the bureau consists of construction and maintenance of all insular roads, bridges, culverts, harbor bulkheads, water fronts; franchise investigations, and supervision of municipal improvements.

#### *General statement of credits and expenditures.*

	Appropriation.	Repayments.	Total credits.	Expended prior to fiscal year, 1912.	Expended during fiscal year, 1912.	Balance at end of fiscal year, 1912.
Maintenance, repair, and construction of insular roads and bridges.....	\$300,000.00	\$5,475.26	\$305,475.26	.....	\$301,809.93	\$3,665.33
Road construction bond issue of 1906, 1907, and 1910.....	426,165.69	18,641.26	444,806.95	\$97,117.65	327,689.30	19,826.96
Road construction appropriation of 1908.....	250,000.00	178.66	250,178.66	241,601.46	2,296.34	6,278.86
Road construction appropriation of 1910.....	170,000.00	5,412.84	175,412.84	26,064.04	78,780.35	66,548.65
Construction of certain bridges in road No. 3, appropriation of 1912.....	55,000.00	36.28	55,036.28	.....	7,453.65	47,582.63

#### ROAD CONSTRUCTION.

Expenditures during Spanish control and since are shown in table No. 3. Graphical exhibition of road lengths constructed during Spanish control and yearly since appears in Table No. 3a.

During the fiscal year 67.4 kilometers of road were built, the details of which are as follows:

	Kilometers.
Vega Alta-Vega Baja.....	1.5
Vega Baja-Manati.....	0.3
Manati-Arecibo.....	25.0
Arecibo-Lares.....	3.5
Arecibo-Camuy.....	7.0
Aguada-Añasco.....	2.0
Yauco-Peñuelas.....	17.2
Peñuelas-Ponce.....	6.3
La Plata Naranjito.....	4.6
Total.....	67.4

The Vega Alta-Vega Baja and Vega Baja-Manati Roads were completed early in the year; the others not until July 1.

The Manati-Arecibo road was completed to a junction with a private road and bridge of the Central Cambalache, which gives a temporary outlet to Arecibo. Permanent improvement of this road requires the construction of bridges over both the Manati and the Arecibo Rivers, together with an extension of the Arecibo end of the road to connect with the Arecibo and Ponce Road. A temporary submergible bridge will be built over the Manati River by about September 1.

The Aguada-Añasco Road was graded for practically its whole length, but there remain a considerable number of culverts and bridges to be built and 21.5 kilometers of macadam to be laid. This work will be continued during the coming year, and it is estimated will be completed by March, 1913.

Very little was done on the San Juan-Bayamon Road because of delay in settling boundary for harbor area. During the coming year work on it will be continued.

During the last session of the legislature a small appropriation was made to continue the construction of the Vega Baja-Morovis Road, and work will be carried on during the coming year as far as the money available will permit.

Both free and convict labor was used throughout the year on road construction, but during the coming year the construction work done will be almost solely by convict labor because of the small amount of funds available for this purpose.

In addition to the structures built on roads under construction, work was begun on new steel bridges over the Espiritu Santo and Grande Rivers near the town of Rio Grande. The abutments of one were completed and construction work begun on those of the other. Contracts were let for the steel work, and it is expected that both bridges will be completed by December 1. In June the temporary wooden truss spanning the Espiritu Santo was carried away by flood water.

The wooden pile bridge over the Añasco River was completed early in the year and the temporary wooden pile bridge over the Mameyes River on road No. 3 between Mameyes and Luquillo, which was carried away by flood, was replaced by a similar one built of native lumber.

Minor repairs and improvements were made at the water fronts in San Juan and Ponce. A considerable number of investigations and examinations were made preliminary to the granting of franchises.

#### ROAD MAINTENANCE.

Maintenance work was prosecuted to such extent as the money available would permit. Table No. 1 shows details of work, Nos. 2 and 4 unit costs.

The question of road maintenance is a serious one and will become more so unless sufficient funds are appropriated to provide for extensive repairs in addition to regular maintenance. The greater portion of the roads in the island are not in a proper condition for maintenance. It will be necessary to resurface them before they will be in such condition. The influx and operation of a large number of heavy motor trucks in addition to the constantly increasing number of automobiles have in some cases resulted in the destruction within a few months of roads which were, until that time, in a fair condition to carry the ox-cart traffic for which they were designed.

As shown in the report of the division of property and accounts, there were 806 automobiles and 65 heavy motor trucks in operation on June 30, 1912. With this class of traffic many of the present roads will have to be entirely rebuilt; for instance, the road from Aguadilla to Lares has been completely destroyed by the use of automobiles and trucks, and the Government has been compelled to extend during the present year for the repair of these 37 kilometers not less than \$40,000. It is true that this road was not in first-class condition and that its construction originally was not sufficiently heavy to stand the heavy motor and automobile traffic, but with small repairs it would have stood several years of the ordinary traffic of bull carts for which the road was designed.

Another cause of the rapid wear of the roads by the present heavy traffic is that the class of stone used formerly has not been of the best quality. The method of contracting with private parties to furnish stone has had a tendency to get the poorest quality, as few of them were competent to get out the harder or better qualities and most of them resorted to furnishing such as could be quarried without the use of explosives. This has resulted in putting on the roads a class of stone that quickly goes to pieces under the rains, sun, and heavy traffic.

At present efforts are being made to get out as much stone by administration as possible. The use of power drills and crusher plants will enable us to obtain the very best quality of stone in the vicinity.

The cost of transportation of materials has steadily increased until the transportation problem has reached such a condition that it has almost been impossible to attain satisfactory results. During the last year we experimented with a steam traction engine to

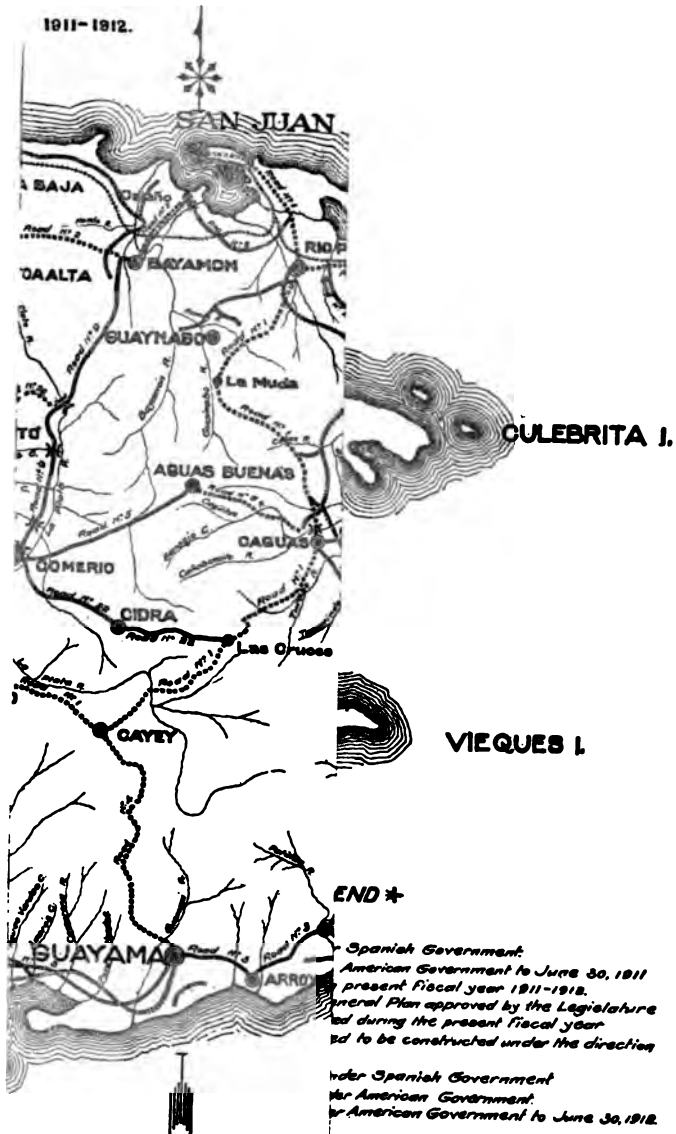
# RAILROAD MAP

OF

## PORTO RICO

PANY ANNUAL REPORT

1911-1912.



Spanish Government.  
American Government to June 30, 1911  
present Fiscal year 1911-1912.  
General Plan approved by the Legislature  
and during the present fiscal year  
to be constructed under the direction

under Spanish Government  
for American Government  
for American Government to June 30, 1912.



relieve the transportation problem, but this has proved unsatisfactory, and now we have resorted to the use of American mules and carts. During the present year about 100 American mules and carts have been purchased, and some have been in use on construction work for several months, with very satisfactory results. It is believed that this method of transportation in road construction and maintenance will greatly reduce the cost and prove more satisfactory in every respect. This, together with a more liberal use of convicts, whose services have been entirely satisfactory, will greatly increase, it is believed, the efficiency of road construction and maintenance.

Assuming that the various roads were in condition for maintenance, an appropriation of \$366,000 was asked of the last legislature and \$300,000 granted. It is of course apparent that the repairs which were to be made with the \$66,000 this year can not be accomplished for that next year, and that if sufficient money is not appropriated by the next legislature to put a portion of the roads in proper shape for maintenance the deterioration will soon be of such a nature that it will require a bond issue to do the work. It is recommended that a liberal appropriation be made by the next legislature for road maintenance.

The cost of the present road system to The People of Porto Rico is, to date, a little over \$7,000,000, and it is clearly to be seen that an insufficient appropriation of funds would be a deplorable waste of public money. Any investment worth as much money as the public roads of Porto Rico and rendering the services they do is worthy of constant and painstaking attention.

On the San Juan portion of the San Juan-Aibonito-Ponce Road a surface application of asphalt is being used. Experiments were first made with crude oil and tar products of a light consistency, which did not give the desired results. At present experiments are being carried on with asphalt alone, which so far is giving promising results, and I hope will enable us materially to reduce the cost of maintenance on roads that are treated with this material. At the present time there are 20 kilometers which have been surfaced with asphalt, and these are being carefully watched for results.

Convict labor was employed with excellent results, and during the coming year it is planned to use this class of labor to as great an extent as possible.

Previous to two years ago the roads of Porto Rico, which were laid out with many adverse grades, sharp turns, and in other respects did not show the results of careful preliminaries, at the same time costing about \$6,000 per kilometer. During the past two years roads have been constructed along better lines, such as easier grades, wider, and with all structures of a permanent nature, and by largely using convict labor the average price has been reduced to about \$5,500 per kilometer.

Attention is again called to the necessity of imposing an adequate tax upon automobiles and motor trucks. The proceeds of such tax, together with license fees from chauffeurs and fines collected on account of infractions of the automobile and roads laws, should be used solely for road maintenance.

#### MUNICIPAL WORK.

Considerable aid was extended to municipalities in their road work, both in planning and inspection. Early in the year it became necessary to take up with greater vigor the question of municipal water supply and sewers.

The act entitled "An act authorizing municipalities. \* \* \* to make certain provisions in ordinances enacted for the purpose of obtaining loans from the insular Government or issuing bonds," approved March 9, 1911, which provides that all municipal improvements constructed from funds obtained under this act shall be from plans and specifications approved by the commissioner of the interior and the offer of the commissioner to prepare plans and specifications for such work at cost, led to the organization of this branch in July, 1911.

The expense of the force, the pay roll of which amounts to \$1,400 a month, has to be met from outside appropriations, which are then reimbursed after the municipalities have received their loans and work has been started. A refundable appropriation of \$20,000 to carry on this work was asked for, but denied by the last legislature. It is recommended that this amount be appropriated by the next legislature.

The following municipalities have either submitted plans or requested that plans be prepared for the work noted opposite to each.

Municipality.	Plans for—	Municipality.	Plans for—
1. Ponce.....	Improvements to the water-works.	18. Yauco.....	Waterworks, for Barrio of Guanico.
2. Ponce.....	Sewerage system.	19. Juncos.....	Waterworks.
3. Yauco.....	Waterworks.	20. Salinas.....	Waterworks, improvements.
4. Cayey.....	Sewerage system.	21. Carolina.....	Waterworks.
5. Fajardo.....	Waterworks.	22. Caguas.....	Sewerage system.
6. Humacao.....	Do.	23. Quebradillas.....	Well.
7. Coamo.....	Improvements to the water-works.	24. Barceloneta.....	Well for Barrio of Florida Adentro.
8. Jayuya.....	Waterworks.	25. Fajardo.....	Sewerage system.
9. Santa Isabel.....	Waterworks and electric-light plant.	26. Aibonito.....	Do.
10. Juana Díaz.....	Waterworks.	27. Yauco.....	Do.
11. Adjuntas.....	Do.	28. Maunabo.....	Waterworks.
12. Penuelas.....	Do.	29. Mayaguez.....	Improvements to the water-works.
13. Arroyo.....	Do.	30. Lares.....	Waterworks.
14. Ciales.....	Do.	31. Barceloneta.....	Do.
15. Maricao.....	Do.	32. Toa Baja.....	Do.
16. San German.....	Do.	33. Caguas.....	Extensions to waterworks.
17. Bayamon.....	Do.		

The order given has, in general, been followed by the prosecution of the work and departures from it have been made only for very good reasons.

To June 30, plans and specifications had been prepared for all of the work to No. 11, inclusive, with the exception of the Santa Isabel work, which is not yet completed owing to the inability of the municipality to make a loan of sufficient size to construct both waterworks and electric light plant and awaiting further action of the municipal council in regard to the waterworks. Plans and specifications for the Fajardo sewerage system have also been prepared, in order that the loan for this work might be made together with that for the waterworks. Plans for Nos. 12 to 15, inclusive, are well under way and will be completed by August 20. Surveys for Nos. 19, 20, and 23 have been completed and surveys for Nos. 17 and 29 are being made and will be completed by July 15.

Plans and specifications have been prepared to date for work aggregating an estimated cost of \$463,500 at an expense of about \$8,500, or less than 2 per cent. It is expected that the outlay for inspection will not be over 2 per cent, making a total for engineering of between 3 and 4 per cent of the cost.

On March 4 bids were opened for the construction of the Yauco waterworks, and the contract awarded to the lowest bidder, Juan B. Filardi, of Yauco. The contract price was \$58,829.56, the engineer's estimate being \$59,995.50. Work was started and fair progress is being made.

On May 20 bids were opened at Jayuya for the construction of waterworks, and the contract was awarded to the lower of the two bidders, Angel Santiago, of Ponce. His bid was \$4,658.50, the engineer's estimate being \$4,486.50. Work has just been started.

A well was drilled at Quebradillas under an appropriation of insular funds for the purpose of drilling experimental wells in Porto Rico. Practically the entire appropriation was required for this purpose, it being necessary to go to a depth of 465 feet in order to obtain sufficient water. Water was first met at 410 feet, but did not rise over 10 feet when the water-bearing stratum was penetrated. The municipality proposes to install a pumping plant and pipe the water to the town at an additional cost of \$3,000.

Bids were opened on June 27 at Humacao for the construction of waterworks, and the contract awarded for \$47,699.85, the engineer's estimate being \$52,738.20.

#### FRANCHISES AND CONCESSIONS.

All applications to the executive council for land, public-service, water-right, or other concessions, as required, were reported upon by the commissioner of the interior. Tables Nos. 5, 5a, 5b, and 5c show these matters in detail.

#### RECOMMENDATIONS.

The last Legislative Assembly failed to pass any appropriation for road construction, with the exception of \$6,000 for the continuation of the road from Vega Baja to Morovis and in consequence the only road construction during the present year will be con-

tinuing the road between Aguada and Añasco, and San Juan and Bayamon. There is probably sufficient funds available for the completion of these sections. I respectfully recommend that the next Legislative Assembly authorize a bond issue of \$1,000,000 for road construction and include in the law provision for funds for maintenance. With the present finances of the island it is not possible to devote sufficient funds for the proper maintenance of roads if more mileage is added to the present and those under construction.

I again recommend the widening of the carretera from San Juan to Martin Peña, and especially that portion between San Antonio and Martin Peña bridges. The amount of traffic passing over this road is enormous for its width, and as pedestrians through Santurce are compelled to use it because of lack of sidewalks, the conditions are absolutely dangerous, and prompt measures should be taken to remedy them.

The committee appointed by the act of the Legislative Assembly of 1911 made its report to the last legislature, recommending a bond issue for the widening of the carretera, but the bill introduced for this purpose failed to pass, and nothing was done to relieve the situation.

#### BRIDGES INTO PONCE.

The construction of bridges over the three rivers on the Central Road between Juana Diaz and Ponce is recommended, as when this is accomplished the latter will never be cut off from the north by heavy rains, as is frequently the case at present.

A cadastral survey of the island, a work of the utmost importance, is recommended, and funds for such a survey should be provided at an early date.

#### BUREAU OF INSULAR TELEGRAPH.

This bureau has charge of a telephone and telegraph system, which is operated throughout the island, furnishing connections between 65 municipalities. During the past year a considerable part of the insular telegraph and telephone lines has been reconstructed by changing old poles, which were in a state of deterioration and at any time liable to collapse, and this has delayed business to considerable extent. On some lines creosoted pitch pine poles have been used, while on others iron poles have been employed.

The insular telegraph lines between Martin Peña and Hornigueros, as well as the line between Rio Piedras and Humacao, have been transferred to the poles of the Porto Rico General Telephone Co., which is to make all necessary repairs and to maintain these wires in accordance with the franchises granted it.

The grounded telephone line between Caguas and Humacao has been changed into a metallic circuit, and is in very satisfactory working order, connections having been made with the exchange of the Porto Rico General Telephone Co. at Humacao, thereby affording their subscribers direct communication with other parts of the island over the insular system.

Two of the telegraph wires running from San Juan to Ponce have been transposed between the stations of Caguas and Aibonito, and transposition is now in progress between Caguas and Rio Piedras, as well as from Aibonito to Ponce, which will make possible the use of these wires as composite telegraph and telephone circuits and give an additional telephone circuit to Ponce.

The sections of the line from San Juan to Ponce and from Caguas to Humacao have been improved by replacement of decayed poles with creosoted pitch-pine poles 6 by 6 inches by 24 feet, 709 new poles having been used on the former and 6 on the latter.

The following sections have been improved and strengthened by removing unserviceable and replacing them with creosoted pitch-pine poles 5 by 5 inches by 24 feet:

Section.	New poles used.	Section.	New poles used.
Arroyo to Maunabo.....	122	Aguadilla to Lares.....	40
Ciales to Manati and Morovis.....	230	Mayaguez to Cabo Rojo.....	52
Mayaguez to Las Marias and Maricao..	206	Arecibo to Utuado.....	232
Ponce to Adjuntas.....	101	Caguas to Humacao.....	195
Bayamon to Comerio.....	60	Humacao to Maunabo.....	60
Ponce to Guanica.....	89		
Guanica to Mayaguez.....	33	Total.....	1,440

On the Aguadilla-Lares section 90 native-wood poles, salvage from the Camuy-Aguadilla line, which have been transferred to the poles of the Porto Rico General Telephone Co., have been placed.



The following sections have been improved by replacing decayed poles with 24-foot iron poles:

Section.	Poles used.
Aibonito-Barros.....	50
Caguas-Aguas Buenas.....	23
Caguas-San Lorenzo.....	75
Total.....	149

The Cayey office has been equipped with a new telephone switchboard of 10-line capacity, and the board formerly used there was transferred to the Aibonito office, where a number of lines now connect.

The wireless station at Vieques is at present installed but not in operation. The firm which undertook this contract has managed badly. The station should have been in operation fully 6 months ago.

The total cash income during the fiscal year for telegraph and telephone service amounted to \$71,628.13, and the expenditures to \$69,566.23, leaving a net profit to the Government of \$2,061.90. This does not take into consideration the amount of free business which the insular Government transacted over the system. Taking credit for the value of tolls on certain classes of Government messages transmitted free, plus the value of reduction of tolls on other classes of government messages transmitted at one-half the commercial rate, the value to the Government of the service rendered is considerably more than the apparent profit.

The total number of messages handled by the bureau during the fiscal year was 247,860, as compared with 221,332 last year—a gain of 26,528.

Of the 62 offices operated during the fiscal year, 34 were at a profit on cash receipts only. Of the latter, 9 are operated by the South Porto Rico and Porto Rico General Telephone Cos. on a percentage basis. Twenty-eight offices were operated at a loss, counting cash receipts alone, but taking credit for free and half-rate messages, only 19 offices were operated at a loss. This year's operation shows an increase of business over last year in cash receipts of \$5,402.52 and on total business transacted, taking credit for free and half-rate business, of \$12,274.03, and a decrease in maintenance and operation of \$4,393.70.

The sum of \$15,395.50 was expended for reconstruction and extension from a special appropriation of \$25,000 made by the last Legislative Assembly for those purposes. The expenditure of this amount will put the lines in such condition that maintenance will be greatly reduced in the future and the service over the entire system will be more efficient.

The income from 20 offices was less than the expenditures. Table No. 6 shows total cash receipts and expenditures of the bureau, and tables No. 7a and 7b details of expenditures. Table No. 8 is a list of stations showing receipts and operating expenses for the year.

#### DIVISION OF PUBLIC BUILDINGS.

The division of public buildings has charge of designing, erecting, and maintenance of all public buildings, including those for school purposes. When the cost of any building exceeds \$100,000 the law provides "that the plans and specifications be obtained by public competition."

Of the \$20,000 available from budget appropriation and \$5,000 additional made available for expenditures during the fiscal year 1911-12 from the budget of 1912-13 for maintenance and repair of public buildings, the following amounts were expended:

Allen Street No. 2.....	\$1, 604. 42
Allen Street No. 3.....	104. 26
Allen Street No. 5.....	166. 60
Arecibo district court building.....	445. 25
Arecibo district jail building.....	51. 04
Audiencia building, San Juan.....	870. 58
Boys' charity school, San Juan.....	161. 50
Caguas police barracks.....	449. 90
Cayey-Guayama roadhouse.....	65. 83
Culebra public building.....	39. 38
Diputation building, San Juan.....	492. 44
Girls' charity school, San Juan.....	1, 015. 96



REFERENCES.

- Telegraph line.  
 - - - - Telephone line



Humacao public building.....	\$158. 82
Intendencia building, San Juan.....	2, 202. 32
In sane asylum, San Juan.....	470. 44
Mayaguez district jail building.....	19. 80
Mayaguez captain of port building.....	2. 08
Mayaguez district court building.....	155. 48
Mayaguez police barracks.....	61. 98
Naval hospital building.....	2, 664. 42
Navy yard.....	56. 04
Pabellon de San Juan.....	100. 50
Penitentiary building.....	410. 16
Ponce blind asylum.....	61. 16
Ponce captain of port building.....	42. 66
Ponce district court building.....	84. 41
Ponce district jail building.....	245. 68
Ponce public works warehouse.....	2. 70
Polvorin storehouse, San Juan.....	27. 85
Rio Piedras police barracks.....	234. 75
Rio Piedras Park.....	163. 71
San Juan captain of port office.....	34. 52
San Francisco Barracks:	
Grammar school.....	45. 13
Police department.....	1, 572. 59
Printing office.....	334. 87
Police barracks, Seboruco.....	60. 42
Secretary of Porto Rico:	
Office of.....	155. 99
Residence.....	90. 07
Various buildings and incidentals.....	5, 348. 98
Stock on hand in storeroom.....	2, 860. 19
<b>Total.....</b>	<b>23, 377. 13</b>

The following work begun during the last fiscal year was completed during the present fiscal year from various appropriations:

<b>By contract:</b>	
Reenforced concrete additions to the reform school, Mayaguez.....	\$14,275.00
2-room reenforced concrete school building at Vieques.....	4, 114. 00
6-room reenforced concrete school building at Ciales.....	8, 750. 00
2-room reenforced concrete addition to school at Yabucoa.....	3, 283. 00
<b>Total.....</b>	<b>16, 147. 00</b>
<b>By administration:</b>	
5-room reenforced concrete school building at Aguada.....	10, 001. 18
5-room reenforced concrete school building at Vega Alta.....	9, 000. 00
Second-story addition to Hawthorne School at Rio Piedras.....	15, 955. 15
Alterations to normal school building and miscellaneous work for the University of Porto Rico at Rio Piedras.....	10, 000. 00
<b>Total.....</b>	<b>44, 956. 33</b>

The following work was begun and finished during the present fiscal year:

<b>By contract:</b>	
Painting, reform school at Mayaguez.....	\$1, 261. 00
Concrete drainage system, reform school at Mayaguez.....	400. 00
Concrete cistern and water tank for reform school at Mayaguez.....	800. 00
Repairs, Culebra public building.....	145. 00
Concrete grandstand, bleachers, and fence, University of Porto Rico, Rio Piedras.....	6, 000. 00
Concrete gymnasium and library building, University of Porto Rico, Rio Piedras.....	9, 953. 00
Labor for installation of plumbing, Auxilio Mutuo Building, school board of San Juan.....	225. 00
<b>Total.....</b>	<b>18, 784. 00</b>

## By administration:

Installation of water-supply filters and repairs to latrines, Yabucoa school building.....	\$387. 18
Repairs to reenforced concrete graded school, Vieques.....	2, 800. 00
Repairs to San Juan School No. 1, for school board of San Juan.....	53. 68
Repairs to military barracks at Aibonito, for school board of Aibonito.....	178. 99
Various work done for the entomologist of the board of commissioners of agriculture.....	1, 362. 02
Repairs to customhouse, Fajardo, for the United States Treasury Department.....	1, 300. 00
Repairs done to naval station for the bureau of supplies, printing, and transportation.....	1, 500. 00
Repairs done to building No. 10, navy yard, for the department of sanitation.....	3, 000. 00
Construction of stables for the department of sanitation at Ponce.....	4, 700. 00
Construction of stables for the department of sanitation at San Juan...	6, 000. 00
Work for the department of sanitation in connection with fair exhibit and laboratory, at San Juan.....	1, 000. 00
Repairs to leper colony, for the department of sanitation.....	2, 800. 00
Repairs to the executive mansion.....	1, 700. 00
Repairs to navy yard, for United States internal-revenue office.....	123. 80
Repairs to vaccine station, for department of sanitation.....	300. 00
Repairs to Auxilio Mutuo Building, for the school board of San Juan ..	1, 269. 38
Work at the reform school, Mayaguez.....	820. 58
<b>Total.....</b>	<b>29, 295. 63</b>

The following work was commenced during the present fiscal year and is still unfinished:

	Available.	Expended.
<b>By contract:</b>		
4-room frame school building at Trujillo Alto.....	\$3, 500	\$3, 253. 06
4-room reenforced concrete school at Miramar, San Juan.....	10, 994	3, 099. 77
2-room reenforced concrete school at Las Piedras.....	4, 000	500. 00
For the department of sanitation the following: Quarantine hospital at San Juan; office buildings at San Juan and Ponce; stable buildings at Arecibo, Guayama, and Mayaguez; and laundry building at San Juan. (Contract for the construction of these buildings was closed during last days of the fiscal year.).....	24, 682. 80	-----
<b>By administration:</b>		
Reenforced concrete college of agriculture and mechanical arts at Mayaguez.....	20, 000. 00	10, 000. 00
Reenforced concrete dormitory building for reform school at Mayaguez.....	15, 000. 00	-----
Reenforced concrete residence for agent in charge, Porto Rico experiment station, Mayaguez.....	5, 000. 00	-----
Roadway from main highway to college of agriculture and mechanical arts, Mayaguez.....	2, 500. 00	1, 000. 00
Extra work on new Trujillo Alto school building.....	1, 000. 00	500. 00
Work done to date for the department of sanitation in connection with the control and suppression of epidemics—the bubonic plague.....	-----	5, 000. 00
<b>Total.....</b>	<b>96, 676. 80</b>	<b>22, 952. 33</b>

The division has prepared plans and specifications for the following buildings:

	Estimated cost.
Guayabal rural school.....	\$1, 500. 00
Addition to Luchetti school, San Juan.....	9, 000. 00
Las Piedras, 2-room school, concrete.....	4, 000. 00
4-room frame school building at Trujillo Alto.....	3, 500. 00
4-room reenforced concrete school at Miramar, San Juan.....	11, 000. 00
2-room frame addition to the Arroyo school building.....	2, 500. 00
4-room reenforced concrete school at Santa Isabel.....	10, 000. 00
2-room school at Ceiba.....	3, 000. 00
4-room reenforced concrete school at Luquillo.....	6, 000. 00
3-room reenforced concrete school at Hormigueros.....	3, 500. 00
For the department of sanitation: Quarantine hospital, San Juan; stables at Guayama, Arecibo, and Mayaguez; offices at Arecibo and Ponce; laundry at San Juan. (These buildings have been recently contracted for.).....	24, 682. 80

Reenforced concrete residence for agent Porto Rico experiment station, Mayaguez.....	\$5,000.00
Addition to house of delegates.....	5,000.00
Slaughterhouse for Coamo.....	2,000.00
Slaughterhouse for Juana Diaz.....	2,000.00
Market house for Juana Diaz.....	8,500.00
City hall building, Ciales.....	12,000.00
Slaughterhouse for Añasco.....	1,200.00

Preliminary sketch plans have been prepared for the following projects:

	Estimated cost.
16-room reenforced concrete school for Humacao.....	\$40,000
8-room reenforced concrete school for Naguabo.....	20,000
8-room reenforced concrete school for Juncos.....	18,000
12-room reenforced concrete school for Aguadilla.....	20,000
12-room reenforced concrete school at Mayaguez.....	30,000
6-room reenforced concrete school for Gurabo.....	10,000
Improvements to the graded school building at Rio Grande.....	5,000
City hall building, Cayey.....	20,000
District jail building, Humacao.....	20,000

The cost of water for public buildings was \$1,800, and of light \$2,200.

The above makes a total of \$229,236.89 in buildings and work contracted for and being built by the division at the close of the present fiscal year, as compared with \$136,434.82 for the last fiscal year, an increase of \$73,724.47.

#### DIVISION OF PUBLIC LANDS.

This division makes surveys of all public lands belonging to The People of Porto Rico, investigates all questions of titles to such lands, and furnishes reports to other departments regarding these questions, etc.

During the present fiscal year the following property has been surveyed:

A tract of 2,230 cuerdas, more or less, in Guayama, which was granted by the Legislative Assembly to Mr. Juan R. Baiz in accordance with Act No. 46, laws of 1911, regular session, approved March 9, 1911, for a term of 30 years. It was necessary for this survey to measure another 2,000 cuerdas of property.

Two tracts having a total area of 125 cuerdas in the municipality of Pefíuelas.

A large number of lots in the Playa at Mayaguez, all belonging to The People of Porto Rico and several of which have been leased.

Three lots in the city of Ponce and the land where the Ponce Pier is to be located.

In the barria of Puerta de Tierra, of San Juan, survey was made of the lands belonging to Manuel Gestera, which are claimed in part by the people of Porto Rico.

Boundary lines were established between lands of private parties and those of The People of Porto Rico and the land for the erection of the Young Men's Christian Association building was staked out.

The land for the hotel site in San Juan was measured and the boundary thereof marked with concrete monuments.

Study of the proposed widening of the Carretera from the Plaza de Colon to the San Antonio Bridge was made and plans for the transfer of the Insular Fair Building from Santurce to Puerta de Tierra were prepared.

Boundary lines of a parcel of land belonging to The People of Porto Rico which is to be delivered to the department of sanitation were established and survey and plans of land occupied by the offices of the Department of Sanitation were completed.

Plans of a playground for the University of Porto Rico, Rio Piedras, were finished.

In La Perla, the northern part of San Juan, some public lands were staked out, and in Santurce, municipality of San Juan, certain lands belonging to The People of Porto Rico, as well as some property of Mr. Wenceslao Bosch, were surveyed.

The survey of the National Forest reservation at Luquillo has been begun.

During the present fiscal year the division has attended to 1,210 separate cases regarding public lands, among which are to be found many relating to titles of possession or of dominion which were brought before the courts by private parties and were referred to this division for report.

The division has leased 74 fincas belonging to The People of Porto Rico at an annual rental of \$1,628.05, and making a total rental for all the lands which have been leased up to and including June 30, 1912, of \$12,431.68.

Twenty-three copies of public documents of its archives have been issued by the division on which fees amounting to \$52.46 have been collected in internal-revenue stamps.

Two tracts of land in Guayama and one tract each in Arecibo and San Juan belonging to The People of Porto Rico have been recorded with different registrars of property.

The total expenditures for this division were for: Field labor, \$65.89; traveling, \$481.97; salaries, \$7,319.83; expenses, office supplies, \$433.43; miscellaneous, \$21.15; total, \$8,322.27.

#### DIVISION OF HARBORS AND DOCKS.

This division has charge of all the shipping of the island, collection of harbor fees, pilotage, and has general supervision of all of the harbors and water fronts; it designates berths for all vessels while in harbors, looks after the general shipping interests of the public, and does general police duty on the water front.

As stated in the report for 1910-11, the facilities for handling shipments in the port of San Juan are inadequate and in consequence during the first half of the present fiscal year the congestion on the water front was indescribable. During the last half this condition was somewhat improved, owing to the fact that because of the discussion of the sugar tariff in Congress the merchants and sugar planters had countermanded a large percentage of their orders for materials in the United States and elsewhere, which naturally decreased the shipments to the island. Notwithstanding this, immediate measures should be taken by the Government to provide more ample and modern facilities for the shippers of the island.

A bill was passed by the last Legislative Assembly authorizing the sale of bonds to the amount of \$500,000, the proceeds to be used for harbor improvements in the port of San Juan, and the work to be done under the direction of a board to be known as the San Juan Harbor board, which has been duly organized, and the chief engineer and other necessary assistants employed. A study of the project and the preliminary work connected therewith are now under way, including a plan for widening the water-front streets and laying out additional cross streets that will enable traffic to communicate with the water-front reclaimed land, and provide sufficient berths and dockage for shippers for some time to come.

The entrances to Piers Nos. 2 and 3 should be taken into consideration, and the lots immediately in front of them, which are increasing in value yearly, and are now occupied by old and dilapidated buildings, should be acquired at an early date to provide ample and safe entrances. The entrance to Pier No. 1 will be sufficiently wide to accommodate all traffic upon the removal of the sheds northeast of the Tinglado, which is contemplated at an early date.

After considerable delay the American Railroad, it is understood, intends to start the construction of a new pier for which it was granted a franchise about July 15, and it is expected that this will be completed and ready to receive shipments before the next sugar crop is harvested. This, together with the present facilities provided by the San Antonio Dock and other storage rooms of various character, will be sufficient for shippers, although they will be congested. The amount of business in the port of San Juan has been increasing steadily for the past year.

The port of Ponce will soon be provided with a new steel pier, which is being constructed by the city of Ponce, and will provide modern facilities for the handling of cargo for all time.

Table No. 9 shows the collections at the several ports and Table No. 10 the number of vessels and tonnage entering the ports during the fiscal year.

#### DIVISION OF PROPERTY AND ACCOUNTS.

This division has charge of all the property of the department, accounts for all expenditures and receipts, acts as special disbursing office for the payment of all laborers, makes all requisitions for material and supplies, and issues motor-vehicle and chauffeur licenses.

During the year 9,178 accounts, aggregating the sum of \$1,500,162.51, have been prepared, recorded, and transmitted to the auditor's office for settlement.

The sum of \$406,497.34 in cash, representing 85,519 individual payments, on 6,236 pay rolls, has been paid by the special disbursing officer, and 69 main accounts with 156 subsidiary or subaccounts have been handled, with a total credit of \$5,490,377.59. There were placed with the bureau of supplies, printing, and transportation 2,409 requisitions and there were issued 638 department orders for direct purchase.

There were made, in accordance with the civil-service laws, 284 permanent and 84 temporary appointments, 298 separations, 10 transfers, 30 reinstatements, 213 promotions, and 10 transfers from one position to another in the department.

During the year, 507 automobile and 59 motor-cycle licenses were registered, 327 automobile and 28 motor-cycle licenses renewed, 288 automobile and 32 motor-cycle licenses transferred, 180 automobile and 21 motor-cycle licenses canceled, and 23 automobile licenses authorized changed from private to public use.

On June 30, 1912, there were in force 806 automobile, 91 motor cycle, 65 heavy motor truck, and 1,652 chauffeur's licenses, 770 of the latter having been issued during the year.

The sum of \$10,941.42 has been received and deposited to the credit of the treasurer of Porto Rico on account of miscellaneous receipts and repayments.

#### PORTO RICO IRRIGATION SERVICE.

The most important work under the direction of this department at present is the irrigation project, and on account of its magnitude the report, covering operations and expenditures for the past fiscal year, are given somewhat in detail.

#### ORGANIZATION AND PERSONNEL.

No special changes have been made in the organization, which essentially consists of the main office at Guayama, where the executive and clerical forces are located, and seven division offices, each under the immediate control of a division engineer. Numerous changes in the personnel of the technical, clerical, and skilled labor forces are shown in the following recapitulation of the service and vacation record of regular employees during the fiscal year ended June 30, 1912:

Feature.	Employees, July 1, 1911.	Changes.		Employees, June 30, 1912.	Days' leave granted during year.		
		New employees.	Separations.		With pay.	Without pay.	Total leave.
Patillas Dam.....	20	54	41	33	96	38	134
Patillas and Guamani Canals.....	16	4	5	15	150	10	160
Carite Dam.....	4	7	2	9	75	0	75
Carite water power.....	0	7	1	6	1	6	7
Guayabal Dam.....	16	20	14	22	163	116	279
General administration.....	16	42	23	35	252	134	386
Juana Diaz Canal.....	6	13	4	15	37	9	46
Hydrographic division.....	7	7	4	10	82	4	86
Total.....	85	154	94	145	856	317	1,173

The following statement shows the number of employees engaged administratively at the close of the year on the various divisions, not including those located in the San Juan offices and whose salaries are charged against the irrigation service nor those of the contractors:

Titles.	Guayama. <sup>1</sup>	Patillas Dam.	Patillas Canal.	Carite Dam and Tunnel.	Carite Water Power.	Guamani Canal and Melania Dam.	Guayabal Dam.	Toro Negro division.	Juana Diaz Canal and Coamo Dam.	General surveys.	Total.
Chief engineer.....	1										1
Supervising engineer.....			1								1
Chiefs of division.....	4	1		1	1		1		1		9
Superintending engineers.....			1				1				2
Electrical engineer.....					1		1				1
Draftsmen.....	4										4
Assistant hydrographer.....	1										1
Instrumentmen and assistant engineers.....	6	1	1	1	1	1	2		3	1	17
Rodmen.....		2		1	1		2	1	1	1	9
Gauge keepers.....	81										81
Practicantes.....		1		1			1				3
Division clerks.....		1		1	1		1		1		5
Bookkeepers.....		1		1			1				3
Stenographers and clerks.....	28	6		3	1	1			4		43
Telephone operator.....	1										1
Office boys.....	2						1				3
General superintendents.....		1		1			1				3
Assistant superintendents.....		1							2		3
Master mechanics.....		1		1			1				3

<sup>1</sup> General office in Guayama includes auditing, disbursing, legal, and hydrographic divisions.



Titles.	Guayama.	Patillas Dam.	Patillas Canal.	Carite Dam and Tunnel.	Carite Water Power.	Guasani Canal and Melana Dam.	Guayabal Dam.	Toro Negro diversion.	Juana Dias Canal and Coamo Dam.	General surveys.	Total.
Roadmaster.....							1				1
Foremen.....		14	3	3	4	4	14		2		44
Dinkey enginemen.....		9					1				10
Stationary enginemen.....		6					2				8
Shovel enginemen.....		3									3
Cableway enginemen.....		1					2				3
Shovel cranesmen.....		3									3
Firemen.....		16		2			3				21
Mechanics.....	3	19	7	5	10	3	8				55
Drill runners.....		1	2	3			5				11
Laborers.....	8	336	109	198	63	80	356		453		1,603
Cooks and waiters.....		4		3	1		3		2		13
Teamsters.....	6	2		1	1		1		7		18
Capataces.....		6		7							13
Carpenters.....	1	22		3	2						28
Total.....	146	458	124	236	87	89	408	1	476	2	2,027

## GENERAL CONDITIONS.

A general description of the irrigation project and of each of its principal features is given on pages 137-139 of the annual report of the governor of Porto Rico for the fiscal year 1911.

Conforming to laws enacted during the latter part of the previous year, all new construction work has been performed by day labor administratively. The construction contracts then in force have been completed, except two, Nos. 20 and 21, for Toro Negro and Carite Tunnels, which are still in force and are described later in further detail, and contract No. 30, for the Toro Negro Dam, agreements for the rescission of which have been recently completed.

Climatic conditions have been favorable for construction. No severe storms have occurred during the year and delay of work on account of frequent rains has occurred only at Carite.

Labor conditions have remained unchanged. The importation from the United States of the larger number of skilled laborers for the operation of construction plants has been necessary. Throughout all divisions, common labor has been scarce during the cane harvest, January to June. Wages have been controlled by the planter's scales, except where work was especially difficult, undesirable, or dangerous, and considerable work has been done under the "tarea" and "ajuste," or task and minor contract systems, which, wherever adaptable to the work, are more satisfactory than the usual day labor system. In general, the peon laborers are poorly fed and lacking in endurance. It would be profitable to provide sustenance for all peon laborers who are continuously employed. This idea has been opposed by the planters, and only one laborers' mess has been established, at Carite Dam, an isolated camp, where the peons are charged 25 cents daily, and the results have been decidedly satisfactory. It has been necessary to establish Government mess halls at three construction camps for the skilled laborers, the cost of which is supposed to be covered by the rates charged, which vary from 60 to 90 cents daily. The fact is that all of these messes have been operated with some loss.

Sanitation of camps and health conditions of employees have received special attention, and at no time have they been unfavorable. Several cases of diarrhea have occurred at one camp, the number of which has been materially reduced by boiling and filtering all drinking water, and a few cases of malaria have appeared at all camps. Medical attention is under the advisory direction of the director of sanitation. Small hospitals have been constructed and a practicante is in attendance at each of the principal construction camps. The health officers are immediately available for professional aid in case of more serious sickness or accidents.

Care has been exercised to provide safety appliances and to guard laborers as fully as possible against the ordinary dangers of construction work and the hazard of their occupation and to protect them from the negligence of other employees. The following list of accidents appears at first glance rather large, but when it is considered

that the laborers usually remain on the works for short periods—only about 60 per cent work throughout the entire pay period of two weeks—and that they are inexperienced in the operation of ordinary construction plants the percentage of accidents appears more favorable. It is estimated that 7,000 different laborers were employed.

*Accidents to employees of the irrigation service, June 30, 1911, to June 30, 1912.*

Name.	Date.	Position.	Nature of injury.
<b>Patillas Dam:</b>			
Pantaleon Rodriques.....	July 12, 1911	Laborer....	Fell between tracks while pushing car out of tunnel; received lacerations and contusions of legs.
Francisco Gonzales.....	.....do.....	Water boy.	Injured by a block, which drew him into the trench.
Chas. Cann.....	Sept. 10, 1911	Foreman....	Burned by steam escaping from valve which was being repaired.
<b>Patillas and Guamani Canals:</b>			
Carpio Tejera.....	Aug. 9, 1911	Driller.....	Slightly injured by explosion of dynamite.
Vicfor Cedeño.....	Sept. 29, 1911	Laborer.....	Fell off a log; bruised and lacerated.
Antonio Cedeño.....	Oct. 19, 1911	.....do.....	Slightly injured by falling plank.
Saturnino Pomales.....	Oct. 28, 1911	Laborers....	Cut and bruised by explosion of dynamite while drilling out a charge which misfired.
José Liera.....	Nov. 17, 1911	Laborer.....	Injured by rock falling from roof of tunnel.
Pascual Rodrigues.....	Dec. 22, 1911	.....do.....	Rock from roof of Ancoones Tunnel fell on foot, breaking toe and bruising foot.
Marcelo Pares.....	.....do.....	.....do.....	Stepped on machete, cutting his foot.
Gumerindo Ocasio.....	Feb. 29, 1912	.....do.....	Head cut by stone falling from roof of tunnel.
Hipolito Vasquez.....	Feb. 20, 1912	.....do.....	Arm caught between car and concrete lining of tunnel, spraining the wrist.
Sebastián Martinez.....	Feb. 4, 1912	.....do.....	Right eyeball destroyed by piece of steel chipped from head of hand drill.
<b>Carite Dam:</b>			
Peter Marry.....	Sept. 21, 1911	Laborer on crusher.	Right arm caught and broken between belt and driving pulley of crusher; face and shoulder bruised.
Benito Collazo.....	Oct. 23, 1911	Laborer.....	Slightly injured by runaway car.
Astacio Anaya.....	Mar. 21, 1912	Brakeman....	Fatally injured by runaway car.
Francisco Gallardo.....	June 5, 1912	Laborer.....	Falling stone bruised head.
<b>Carite water power:</b>			
Mateo San.....	Mar. 8, 1912	Driver's helper.	Fell from wagon, causing runaway; cut and bruised.
<b>Guayabal Dam:</b>			
Ramon Ramos.....	Sept. 27, 1911	Driller.....	Fatally burned by explosion of powder.
Benigno Patifio.....	Mar. 26, 1912	Trainman....	Car ran over right hand; thumb, index and second finger amputated.
Leoncio Garcia.....	Apr. 2, 1912	Mechanic....	Scalded by steam.
Francisco Omna.....	Apr. 8, 1912	.....do.....	Hands burned by sudden flare of blowtorch.
José Lopez.....	June 10, 1912	Laborer.....	Asphyxiated by a slide in excavation trench.
<b>Juana Diaz Canal:</b>			
Juan Rivera Nufiez.....	Oct. 20, 1911	.....do.....	Injury to right eye.
Edward Bond.....	Nov. 10, 1911	Teamster....	Wagon overturned in fording river; right arm and side bruised.
Anacleto Rivero.....	Jan. 16, 1912	Driller.....	Partially asphyxiated by gas in tunnel.
Andrés Perez.....	Feb. 13, 1912	Laborer.....	Injured by piece of track falling on foot.
Pablo Soto.....	Mar. 2, 1912	Watchman....	Burned by explosion of lantern.
Ramon Reyes.....	.....do.....	Laborer.....	Right foot cut with axe.
Francisco Orsini.....	.....do.....	Foreman.....	Foreman and 4 laborers killed while drilling a charge which misfired; dynamite exploded, killing the 5 men.
Isabel Molina Torres.....	Apr. 18, 1912	Laborers....	
Antonio Rosario.....	.....do.....	.....do.....	
Miguel Rolon.....	.....do.....	.....do.....	Left eye injured by stone.
Francisco Baez.....	May 3, 1912	Driller.....	
Luis de Jesús.....	May 10, 1912	.....do.....	
Henry Williams.....	May 21, 1912	.....do.....	Striking hammer slipped, bruising arm.
F. Lorenzo.....	May 22, 1912	Laborer.....	Eye injured by stone and dust.
Cristobal Oquendo.....	.....do.....	.....do.....	Hammer slipped, producing slight wound in forehead.
José Quiro.....	May 28, 1912	.....do.....	Hammer slipped, injuring right knee and wrist.

CONSTRUCTION WORK UNDER CONTRACT.

*Carite tunnel, 80 per cent completed.*—This tunnel, 4 by 6 feet in section and 3,030 feet long, connects Carite Reservoir with the headwaters of the Guamani River. The material encountered is generally very hard, and only a small portion will require concrete lining.

The time for completion as extended expired on June 30, 1912, but another extension of six months has been requested. The length of tunnel completed is 2,514 feet, leaving 516 feet to excavate, requiring a progress of 86 feet per month to complete within the proposed extension of time. The contractor has furthermore requested to

be relieved from completing the concrete work under his contract. Since the concreting equipment at Carite Dam is available for this work, it is estimated that it can be done by administration for less than the contract price, and the approval of the request has been recommended.

The contractor's principal equipment consists of two 70 and one 105 cubic feet per minute air compressors, air rock drills, a blower for ventilation, revolving dump cars of one-half yard capacity, and 16-pound rails for track lines. It is estimated that this feature will be completed in November.

*Toro Negro diversion, 85 per cent completed.*—To date this feature has been built entirely by contract. It consists of the Toro Negro diversion dam, the Toro Negro Tunnel, and the Dofia Juana Canal. Work on the diversion dam was discontinued in November, owing to the failure of the contractor on the Toro Negro Tunnel to finish his undertaking. On account of this delay the contract has been relinquished by special agreement, and it will be completed by administration. It is not proposed to resume the work until the completion of the tunnel and the end of the rainy season, when under favorable weather and flood conditions the entire project can be completed within three months. The tunnel is 90 per cent completed, and only 314 feet remain to be driven. It is anticipated that the contractor will finish the tunnel during August.

The Dofia Juana Canal diverts and carries the water of the Dofia Juana stream, a tributary of the Toro Negro, which empties into it below the diversion dam, to the Toro Negro Tunnel. The canal is concrete lined and has been completed with the exception of the riveted pipe for siphons, which has been delivered to the site, but is not placed.

The contractor's plant for the dam and canal consists of small tools, such as picks, shovels, and wheelbarrows. For the Toro Negro Tunnel it consists of air drills, compressor, track lines, and dump cars. The air compressor, of 250 cubic feet free air per minute, is direct-connected with a Pelton wheel operated by water from the Dofia Juana Canal under a head of about 230 feet.

The following table shows the status of the two tunnel contracts in progress and of all other construction contracts in force during the year:

Contracts and items of work.	Engi- neer's esti- mate.	Construction work done to—					Per cent com- pleted.
		July 1, 1911.	Oct. 1, 1911.	Jan. 1, 1912.	Apr. 1, 1912.	July 1, 1912.	
Carite Tunnel, contract No. 20, T. L. Huston, contractor (80 per cent completed):							
Open-cut excavation, all classes, cubic meters.....	10,000	6,751	6,751	6,751	6,893	7,858	79
Excavation for tunnel..... cubic meters.....	2,050	704	1,075	1,301	1,522	1,664	82
Concrete, all classes, including reinforcement..... cubic meters.....	360						
Tunnel timbering..... M feet b. m.....	5.0	2.6	3.6	3.6	3.6	4.3	86
Toro Negro Tunnel, contract No. 21, T. L. Huston, contractor (95 per cent completed):							
Open-cut excavation, all classes, cubic meters.....	5,440	5,440	5,440	5,440	5,440	5,440	100
Excavation for tunnel..... cubic meters.....	3,300	938	1,502	1,741	2,204	2,937	90
Concrete, all classes, including reinforcement..... cubic meters.....	100	33	36	36	36	36	36
Tunnel timbering..... M feet b. m.....							100
Patillas Canal, schedule 7, contract No. 23, Carlos Clauselle, contractor (completed):							
Canal excavation..... cubic meters.....	31,920	23,662	30,218	31,920			100
Concrete-pipe culverts..... linear feet.....	605	516	605	605			100
Concrete box culverts..... cubic meters.....	279	267	279	279			100
Toro Negro Dam, contract No. 30, Nereo Pirraal, contractor (relinquished by special agreement):							
Clearing and grubbing..... acres.....	2.0	0.6	0.6	0.6			
Open-cut excavation, all classes, cubic meters.....	20,200	6,196	7,131	7,942			
Concrete, including reinforcement, cubic meters.....	100		48	48			
Dofia Juana Canal, contract No. 31, Nereo Pirraal, contractor (completed):							
Open-cut excavation..... cubic meters.....	1,358	978	1,358				100
Tunnel excavation..... do.....	86	86	86				100
Concrete, including reinforcement, cubic meters.....	337	176	337				100
Recapitulation:							
Open-cut excavation..... cubic meters.....	68,918	43,027	50,898	53,411	53,543	54,518	86
Tunnel excavation..... do.....	5,436	1,723	2,663	3,128	3,812	4,707	87
Concrete..... do.....	1,176	476	700	700	700	700	60

## CONSTRUCTION WORK UNDER ADMINISTRATION.

*Patillas Dam (31 per cent completed).*—This is located across the Patillas River about 1 mile northwest of the town of the same name. Its maximum height above the river bed will be 135 feet, its crest length 1,000 feet, and its volume 725,000 cubic meters. A concrete core wall extends through the central portion of the dam and into impervious material.

In addition to camp construction and installation of plant, preliminary work included the building of a tunnel 20 by 20 feet in section, to carry the river during the period of construction. Later the building of a spillway, necessitating the excavation of 57,400 cubic meters of earth and rock, will be required. Transportation from the port at Patillas Landing to the dam site is provided for by the construction of 1 kilometer of track connection with the 0.75-meter gauge track of the Providencia-La Fayette system. The rolling stock of this line consists of three 6-ton locomotives and twenty 4-yard dump cars. Transportation from the port, Arroyo, is partly by mules owned by the service and partly by hired bull carts.

The principal excavating equipment comprises three Marion steam shovels, Nos. 35, 50, and 76. The dirt-train rolling stock consists of six 21-ton locomotives and thirty 8-yard dump cars operated by automatic air devices. The plant comprises a machine shop, an air compressor of 250 cubic feet of free air per minute capacity, a 15-kilowatt lighting plant for night shift, rock drills, derricks, pumps, concrete mixer, and the usual supply of small tools.

The essential method of construction of the dam embankment is the dumping of dirt trains from trestles having a maximum height of about 50 feet, located near the heel and toe of the dam. The central impervious material will be distributed and compacted by hydraulicking, the monitors being operated from a pontoon. The water is obtained about 8,000 feet upstream, the pipe line consisting of spirally riveted pipe 12 and 16 inches in diameter, and is delivered at the dam site under a maximum head of about 200 feet.

The principal items completed are: Preliminary work on camp construction and assembling of plant and the tunnel, including concrete lining and inlet and outlet channels. The core-wall excavation and concrete are about 65 per cent completed; the dam trestles as located are about 80 per cent finished, and a total of 103,192 cubic meters have been placed in the dam embankment. The pipe line for hydraulicking has been constructed and its supply of water is used for various purposes. Hydraulicking will be commenced during the month of August.

It is estimated that the entire construction will be finished about January 1, 1914.

*Patillas Canal and laterals (67 per cent completed).*—This canal, starting from the Patillas Dam at an elevation of 138 feet above the sea, runs westerly along the foothills and through the cane fields to the Salinas River, a distance of about 24 miles. The maximum capacity of the canal at the intake, 150 second-feet, is reduced as water is taken out for the irrigation of the adjacent fields.

Construction work has continued throughout the year and contract No. 23, for schedule 7, was completed in October, 1911. During the fiscal year all other work has been done by administration. The open-cut excavation for the entire canal is now finished and Felicita Tunnel was completed and lined with concrete. The concrete flume over the Quebrada Puente Blanco, known as Llaurel Flume, has been completed, and also the concrete inverted siphon under Guamani River. The Rio Seco siphon, except the inlet and outlet, is finished. Concrete work for steel flumes crossing Corazon Quebrada and Arroyo River has been completed and that for Felicita Flume is nearly finished. Crossings of the canal by roads and callejones have been provided for by building 104 reinforced-concrete bridges. The work remaining to be done before Patillas Canal can be put in service is the completion of Ancones Tunnel, of which 1,029 feet remain to be excavated; the erection of trestles and steel flumes for Felicita, Arroyo, Corazon, and Seco Flumes; of the Adela siphon, which will be of concrete, 150 feet long; and of a few spillways and all lateral headworks, and a general clean-up of the open canal, which should be done just before the water is turned in.

No construction work has been done to date on Patillas lateral canals and outlets. Owing to the small size of these ditches it is not desirable to build them until a short time before they are needed. Running through cultivated fields, as they must, it would be difficult to prevent them from being filled up by the ordinary operations of preparing and cultivating the adjacent land. Preliminary surveys and tentative locations have been made for 32 miles of lateral canals, commanding about 10,500 acres of land.

*Guamani canals and laterals (46 per cent completed).*—These canals have their headworks 3 miles below the tailrace of the Carite water-power plant and about 2 miles

above Guayama. The capacity of the west Guamani Canal is 135 second-feet, which is sufficient to save a large portion of the flood waters of Guamani River, additional to the water derived from the Carite Reservoir. This capacity is maintained for 2.4 miles and through Conuco Tunnel. Just below the tunnel a small diversion dam is built across the ravine, into which the tunnel discharges. This dam will divert about 20 second-feet of water into a high-line lateral which runs westerly for about 7.5 miles along the foothills, and which will furnish water to all the irrigable land lying between it and the Patillas Canal. The remaining water will continue down the ravine from Conuco Tunnel to the Patillas Canal and will be distributed through this canal and its laterals.

No construction work has been completed on the East Guamani Canal, which will take water from the east side of Guamani River through the present Olimpo Canal No. 1. This canal will be enlarged to a capacity of about 15 second-feet at its upper end and will extend about 3 miles through the Corazon Valley to irrigate about 800 acres of cane land.

All work on the Guamani Canals has been done by administration. The approaches to Conuco Tunnel were started in July, 1911, and the tunnel was completed, with concrete lining, in June, 1912. Excavation for the high line canal west of Conuco Tunnel is practically completed, and about 60 per cent of the concrete work for culverts, bridges, and flumes has been done; the concrete diversion dam below the tunnel has been finished, and the diversion works at the Guamani River are about half completed.

The work remaining to be done consists of the excavation of about 2 miles of the main canal, from a point near the Guayama-Cayey carretera to Conuco Tunnel, the completion of the headworks, concrete bridges, and culverts, and the erection of about 2,100 feet of trestles and steel flumes across ravines and stream beds.

Work on Patillas and Guamani Canals has been carried on mostly with hand tools, very little machinery being used. Canal excavation has been with pick and shovel, the haul being by wheelbarrows. Where rock was encountered, holes for blasting were drilled by hand and dynamite fired by fuse and caps. The same methods have been followed in tunnel excavation, except at the south heading of Ancones Tunnel, where a steam-driven air compressor was installed and the drills are operated by compressed air. Blowers driven by gasoline engines are used for ventilation in both headings of Ancones Tunnel. The other tunnels were driven without any provision for ventilation. All concrete mixing is by hand. At Conuco and the south end of Ancones Tunnel broken stone from the tunnel excavation was used for aggregate, and at other points river sand and gravel. For bridge work, culverts, and tunnel lining, timber forms were erected in panels, which could be used several times before wearing out. Forms for the interior of siphons were built up of lumber in sections, so that they could be removed and passed through the siphon to be set up again as the concreting advanced. Outside forms consist of 2 by 6 inch lagging, held in place by angle-bar ribs bent to the proper radius. On siphon work the mixing board has been located alongside the section to be concreted and the material placed by means of a chute. The work has been laid out so as to concrete a complete section during the working day, thereby leaving no horizontal joints in the barrel.

*Carite Dam (38 per cent completed).*—This structure, which will impound the headwaters of La Plata River, a stream on the north side of the main divide, is an earthen embankment, faced with rock, of the following dimensions: Maximum height, 110 feet; maximum thickness, 570 feet; length at crest, 500 feet; contents, 155,000 cubic meters. Practically all the material for the dam is obtained from the excavation for the spillway, a cut of 125 feet maximum depth located in the rim of the reservoir about 900 feet from the dam. The preliminary work, all of which is completed, consisted of the following: A wagon road 9 miles long, connecting the dam site with the Cayey-Guayama Road; the construction of camp buildings, storehouses, shops, and installing plant; the building of an outlet culvert, 10 feet by 10 feet in cross section and 500 feet long, to carry the discharge of the La Plata River during construction; and the erection of trestles and track lines to bring material from the spillway to the dam.

To reach the dam site it is necessary to cross the main divide at an elevation of 2,200 feet. The steep grades render the cost of hauling heavy equipment excessive, and in consequence the building of the dam is restricted chiefly to men and animals. Two shifts of 9 hours have been worked each day since February.

The excavation for the spillway is 23 per cent completed, and the course thus far pursued is essentially as follows: The material is loosened by blasting and then moved by hand down the steep slopes of the cut to a hopper, provided with traps through which the excavated material is shoved into 3 cubic yard side-dumping cars, which, when full, are made up into trains of two or three cars coupled to a five-eighths-inch steel cable, operated by a 20-horsepower hoisting engine. This engine, with the assistance of the brakes on the cars, lowers the trains down a 10 per cent grade to the

dam site, where the trains are uncoupled, pass over a trestle loop on a grade averaging  $1\frac{1}{2}$  per cent, and are stopped and dumped wherever the material is needed. The empty cars are hauled back to the spillway, up a 20 per cent grade, by a 16-horsepower hoisting engine. The material is distributed in about 6-inch layers over the dam by Fresno scrapers and wheelbarrows and is compacted by a 16-ton traction engine. This engine is also used to haul a road grader to spread and level the material. The dam is completed to a height of nearly 40 feet above the river bed, and a 5 per cent down grade will be used instead of the 10. The 20-horsepower engine can then be dispensed with to let down trains and will be used to drag the loosened material from the cut to the hopper.

The progress of the work has been somewhat delayed by the lack of laborers, prior to April 20 of this year, and the large number of cool, rainy days. These rains, in addition to stopping the work, left the essentially clayey material so heavy and sticky that it could not be handled to advantage and so soft that it could not be rolled during many of the clear days.

It is anticipated that the construction of the dam will be completed in June, 1913.

*Carite water power (9 per cent completed).*—The essential construction items of this project are: First, a concrete lined and covered canal from Carite Tunnel outlet, 1,430 feet long, including a short flume, located on a steep side hill; second, a riveted steel penstock pipe, 2,337 feet long, subject to a maximum head of 760 feet; third, the power house, containing the hydraulic and electric equipment; and, fourth, the transmission lines and substations.

The construction camp has been completed. The access road to the power-house site and a trail from that point to the tunnel have been improved. All hydraulic and electric equipment, except for the transmission lines and substations, have been purchased and delivered at the site. The permanent office and superintendent's house has been built, excavating for the greater portion of the canal and pipe lines has been done, 646 feet of the lower portion of the pipe has been riveted in place, and the equipment and supplies have been hauled from Arroyo, the port. The recoating of a considerable portion of the pipe was necessary. No concrete, except for pipe foundations and anchorages, has been placed, and owing to the limited storage room, except on the power-house site, no construction work has been done on that structure or on the transmission line and substations.

*Guayabal Dam (57 per cent completed).*—This dam is located at Guayabal, about 2½ miles north of Juana Diaz, and crosses the Jacaguas River, the impounded water of which will be distributed through the Juana Diaz Canal. The dam is of the Ambursen reinforced concrete type. Its maximum height above the river bed will be 115 feet and its length 990 feet. At the east end it is joined to an earth and rock filled embankment, having a concrete corewall 303 feet in length. The spillway station is located at the west end of the dam, and will be 684 feet long, making a total length of 1,941 feet of dam and embankment. A study of spillway gates, which will control an additional depth of 5 feet, is in progress.

The main construction plant is located adjacent to the east end of the dam and close to the quarry which furnishes rock for concrete.

The quarry plant, besides small tools, consists of 2 Sergeant E24, 3½-inch rock drills, 1 Sergeant A86, 2½-inch drill, and 1 MV2 Imperial hammer drill for use in breaking small rock. These drills and several hoist engines are operated by compressed air furnished by a central power plant. This power plant consists of four 80-horsepower boilers, locomotive type, with feed pumps and water heater, and a steam-driven Imperial type 10 air compressor, having a capacity of 1,000 cubic feet of free air per minute.

The rock crushers and concrete mixers are located in one building. Two crushers are in use, a No. 6 and a No. 3 McCully gyratory type. Crushed rock from the crushers and sand from the storage piles alongside the building are elevated to bins at the top of the mixing plant by a belt and cup elevator. Another cup elevator elevates the loose cement to a similar bin. From these bins the various concrete materials feed by gravity through measuring hoppers to the two concrete mixers, each of 1 cubic yard capacity. The concrete mixers dump into 1 cubic yard capacity combination bucket and car of the Dowd pattern. The entire bucket and car from the mixer track is transferred by a cableway to a movable track located on top of the concrete form that is being filled.

Two cableways are in use and they also move the sectional forms for the dam. They are of the well-known Lidgerwood pattern of 8 tons capacity. The main cables have a diameter of 2½ inches and spans of 1,100 and 1,168 feet, respectively, between four timber towers whose heights vary from 80 to 125 feet. The cableways are each operated by a 12 by 12 inch Locke type D. C. D. D. engine.

Other engines on the work are a 135-horsepower single cylinder Chandler & Taylor engine to run the crushers and mixers above mentioned, a small engine to run the

machinery in the machine shop, and six 7 by 10 inch D. C. D. D. hoisting engines with swinging gear. Two of the engines are now used to operate derricks employed for the excavation of the dam foundations.

On account of excessive bids for contract transportation, arrangements were made with Fortuna Central for the use of its railroad, 0.6 meter gauge, from Santa Rosa, a station on the American Railroad, and Luciana, its northerly terminus, located within about 2½ miles of the dam site, and the construction of a similar railroad to Guayabal was commenced. The highway between these points crosses the river four times, and is almost impassable for heavy loads during parts of the rainy season. Hauling over the Fortuna Railroad began in June, 1911, the cargoes being transferred to bull carts at Luciana. The Guayabal Railroad was completed and transportation by rail into Guayabal commenced March 19, 1912. The total cost of railroad construction, including all engineering expenses and the Guayabal yards, was \$19,287. The rolling stock consists of one 6-driver Forney type locomotive, weighing 16½ tons, 12 flat cars of 8 tons capacity, and 8 similar cars provided with sides for transporting coal and similar cargoes.

Of the 54 buttresses in the main dam, foundations have been placed for 36, and 29 have been built up to an average height of about 22 feet. The cut-off wall at the heel of the deck has been completed from the east end, except for buttress No. 20, across the river bottom, and the work has been secured against damage by floods. The lower portion of the reenforced concrete deck has been placed in 18 bays. The total volume of concrete placed in the main dam foundation, buttresses and deck aggregates 9,729 cubic meters. Concrete was first laid December 26, 1911.

The total estimated quantity of concrete required is 30,000 cubic meters, of which 26,600 are included in the dam proper, and of this 37 per cent has been placed.

Construction work is now making normal and satisfactory progress. It is estimated that 75 per cent will be completed by January 1, 1913, and the entire feature by the end of the fiscal year.

*Juana Diaz Canal and laterals (54 per cent completed).*—The purpose of the canal is to carry the water from Guayabal Reservoir along the higher portion of the irrigable land lying east of the Jacaguas River and west of the Jueyes. Starting with a maximum capacity of 125 second-feet, it will furnish water to lateral outlets as needed. At the Descalabrado River crossing its capacity is reduced to 70 second-feet and below the Coamo River to 30 second-feet. The canal will command about 15,000 acres of irrigable land.

The principal structures comprised in the building of this canal are: Two tunnels, 510 and 526 feet long; 8 concrete flumes, 51 concrete bridges, 45 concrete culverts, 2 siphons, 19 spillways, 14 steel flumes, and the necessary drops, siphons, and turnouts. In addition, special structures for the crossings of the Descalabrado and Coama Rivers are under consideration.

The plant needed and used in the construction of the canal proper consists of the regular pick and shovel equipment, industrial track, dump cars, etc. The greater portion of canal excavation has been satisfactorily accomplished under small contracts with the laborers. For the tunnels, hand drills and ventilating fans are used. Except for tunneling, no skilled foremen were imported, and the native crews broken in on excavating, concreting, and tunnel driving have given excellent results.

Work on the canal was begun in July and on the tunnels in September, 1911. One of the tunnels was in very hard blocky rock, requiring timbering for one-fourth its length, and the other in toska and a gravelly clay, necessitating timbering or sheeting throughout. Work on the concrete canal structures is well under way. The work completed consists of excavation of canal sections from the Guayabal Dam to the crossing of the Descalabrado River; the driving and lining of Felicia Tunnel, together with its concrete flume approach, and the building of the Lomas conduit, and all concrete bridges and culverts on schedule 1, which includes the bridge for the San Juan-Ponce Road. The work will be completed within the estimated time, or by about June 1, 1913.

A critical study of existing and required laterals and the condition of the lands to be irrigated is in progress and about one-half completed. The new lateral system will make economical use of all possible portions of existing and serviceable laterals.

*Coamo and Melania Dams.*—The Coamo Dam, when built, will conserve the Coamo River floods and furnish water for the irrigation of approximately 1,000 acres additional to existing concessions which utilize the entire ordinary flow of the river. It will also serve as an auxiliary to the Juana Diaz Canal. Provisions have been made for the construction of the Ambursen reenforced concrete type of dam, and a considerable portion of the necessary plant has been purchased and stored at the nearest railroad station. At the close of the year the control of reservoir and dam right of way had not been completed, and a postponement of construction until January, 1913, had been authorized.

Similar postponement has been authorized of the construction of the Melania Dam, which will serve as a regulator of the floods of the Guamani River and the waters of the Carite Reservoir and equalize their distribution into the Patillas Canal.

The following tabulations show by divisions the principal items of construction work completed at the close of each quarter, together with the engineers' estimates of quantities and the percentage completed to date:

*Principal items of construction work accomplished by administration.*

Items of work.	Engi- neers' estimate.	Construction work done to—					Per cent com- pleted.
		July 1, 1911.	Oct. 1, 1911.	Jan. 1, 1912.	Apr. 1, 1912.	July 1, 1912.	
<b>Patillas Dam (31 per cent complete):</b>							
Grubbing and clearing.....acres	32	3.5	3.5	5.5	9	9.5	28
Excavation outlet works, all classes, cubic meters	28,900	16,272	18,379	18,779	32,329	37,329	96
Tunnel and shaft excavations, cubic meters	7,200	6,128	6,548	7,154	7,154	7,154	99
Excavation of cut-off trenches, all classes.....cubic meters	26,800	6,875	7,134	7,134	9,752	17,024	64
Excavation for spillway, all classes, cubic meters	82,000						
Excavation for trg. channel, all classes, cubic meters	4,100						
Tunnel timbering.....M feet b. m.	40	40	40	40	40	40	100
Dam embankment.....cubic meters	737,000	29,276	30,549	32,367	55,365	103,192	14
Concrete, including reinforcement do.	5,320	305	1,868	2,579	2,579	3,206	60
<b>Patillas Canal (86 per cent complete):</b>							
Canal excavation, all classes.....do	251,500	193,878	224,887	246,646	248,174	248,931	99
Tunnel excavation.....do	3,400	1,302	1,705	1,842	2,046	2,448	72
Tunnel timbering.....M feet b. m.	25	11.55	11.55	19.55	22.05	23.55	94
Tunnel concreting.....cubic meter.	850	193	269	426	575	731	86
Concrete for canal structures.....do	2,800	1,576	1,931	2,437	2,620	2,722	97
Steel flumes.....linear feet	2,440						
Concrete pipe.....do	2,887	2,667	2,835	2,887	2,887	2,887	100
<b>Carite Dam (38 per cent complete):</b>							
Grubbing and clearing.....acres	15	5	5	8	8.5	8.5	57
Open-cut excavations, all classes, cubic meters	11,400	2,346	6,290	9,582	9,582	11,151	98
Concreting.....cubic meters	950		530	610	610	610	64
Excavations for spillway, all classes, cubic meters	140,400			4,075	14,599	31,888	23
<b>Carite water power (9 per cent complete):</b>							
Excavation, all classes.....cubic meters	4,800					3,310	69
Construction for canal and pipe line, cubic meters	421					30	7
Laying penstock.....linear feet	2,337					646	27
Transmission lines.....miles	18						
P. H. and installation of plant, per cent							
<b>Guamani Canal (48 per cent complete):</b>							
Canal excavation.....cubic meters	26,940		1,858	6,790	11,530	16,119	60
Tunnel excavation.....do	657		60	290	583	657	100
Concrete for canal structures.....do	710				101	377	53
Tunnel concreting.....do	224				50	224	100
Steel flumes.....linear feet	21,000						
<b>Guayabal Dam (37 per cent complete):</b>							
Clearing and grubbing.....acres	0.95		0.95	0.95	0.95	0.95	100
Excavation for foundations, cubic meters	26,900		2,726	6,101	10,014	14,975	56
Excavation for spillway and embank- ment.....cubic meters	35,000			762	2,515	10,728	31
Leveling and rolling embankment, cubic meters	10,000		558	1,662	3,415	4,290	43
Concrete in dam.....cubic meters	26,600				3,580	9,729	37
Concrete in corewall.....do	1,300			119	892	892	69
Concrete in spillway.....do	2,000						
Road construction excavation.....do	30,000	10,342	21,639	29,472	29,850	29,850	99
Road construction concrete.....do	265		73	248	265	265	100
Caonillas road, \$3,000.10 (surveys and plans being prepared).							
Shutters for spillway (installation).							
<b>Juana Diaz Canal (63 per cent complete):</b>							
Excavation of open cut, all classes, cubic meters	175,910		37,383	64,649	100,982	125,164	71
Excavation for tunnels.....cubic meters	1,604		91	890	1,382	1,489	93
Timbering tunnels.....M feet b. m.	29.2		1.9	27	29.2	29.2	100
Tunnel concrete.....cubic meters	915				624	746	81
Concrete for canal structures.....do	2,680					633	20
Flumes and siphons (plans being pre- pared).							



*Principal items of construction work accomplished by administration—Continued.*

## RECAPITULATION OF PRINCIPAL ITEMS OF WORK BY ADMINISTRATION.

Items of work:	Engi- neers' estimate.	Construction work done to—					Per cent com- pleted.
		July 1, 1911.	Oct. 1, 1911.	Jan. 1, 1912.	Apr. 1, 1912.	July 1, 1912.	
Open-cut excavations, all classes, cubic meters.....	1,591,650	258,983	350,845	426,357	524,002	649,661	41
Tunnel excavation.....cubic meters.....	12,861	7,430	8,404	10,146	11,166	11,748	91
Concreting, all classes.....do.....	45,035	2,074	4,671	6,419	11,896	20,165	45

The following tabulation shows the status of all tunnel excavation, in linear feet:

Name.	Total length.	Excavation—			To be bored.
		To June 30, 1911.	During fis- cal year 1911-12.	To June 30, 1912.	
1. Carite.....	3,030	1,050	1,464	2,514	516
2. Toro Negro.....	2,676	802	1,560	2,362	314
3. Ancones.....	1,969	130	810	940	1,029
4. Conuco.....	596	.....	596	596	.....
5. Patillas.....	590	450	140	590	.....
6. Lomas.....	540	.....	445	445	95
7. Felicitá.....	520	492	28	520	.....
8. Felicitá.....	518	.....	518	518	.....
9. Carlota.....	450	450	.....	450	.....
10. Dona Juana.....	200	200	.....	200	.....
Total.....	11,089	3,574	5,561	9,135	1,954

Of the above, 6,336 feet have been driven under contract and 2,799 by administration. There remain to be completed under contract 830 and by administration 1,124 feet.

## DIVISION OF HYDROGRAPHY.

Stream gaugings have been continued at all regular river, canal, and pumping stations. Several new stations have been established for the purpose of determining canal losses due to evaporation and seepage. All important river stations have been provided with flood gauges and more reliable information will be obtained on flood discharges. There are 62 hydrographic stations located in the eastern division and 88 in the western, requiring the services of 31 and 50 observers, respectively.

Special attention has been given to the preparation of maps showing the results of soil investigations, yield of cane under different classes of cultivation, condition of irrigation, and other data of immediate value in selecting lands for irrigation under the new system and for the use of the irrigation commission provided for by section 15 of the public irrigation law.

Heretofore 91 concessions to use water for domestic, manufacturing, and irrigation purposes from the streams flowing through the irrigation district have been granted. The status of many of the older concessions is indefinite, and some are unlimited as to the amount of water ceded and as to the area and location of land to be irrigated. Many, under a strict interpretation of the law, are subject to forfeiture. In general, the streams within the dry zone, except Patillas River, have been overappropriated. The collection of data on these concessions has been continued, including the securing of copies of the original concessions.

Considerable data, including measurement of water, have been collected on 79 pumping stations located within the district. The tabulation following shows the kind of pumps and how operated.

How operated.	Rotary.	Centrifugal.	Compressed air.	Horizontal duplex.	Horizontal compound duplex.	Vertical triplex.	Vertical single.	Total.
Steam.....	1	2	3	16	27			49
Gasoline.....	4	14				6		24
Producer gas and gas engine <sup>1</sup> .....	1	1				2		4
Producer gas: electrical transmission <sup>2</sup> .....	2	2		1				5
Kerosene.....	4	4						8
Wind.....							3	3
Total.....	12	23	3	17	27	8	3	93

<sup>1</sup> Individual gas producer.<sup>2</sup> Electric power transmitted by wire from a large central gas producer power plant.

Hydrographic investigations in the Cabo Rojo and Lajas division have been almost entirely discontinued because of lack of funds. A continuation of these appropriations and an extension of the region to include some of the rivers in the western part of the island should be provided for at an early date, owing to the importance of such data to any further extension of irrigation by either the Government or private parties.

The following tabulation is a summary of total discharge measurements made up to the end of the fiscal year at 193 hydrographic stations:

Location.	Total discharge measurements made—		
	To June 30, 1911.	During fiscal year 1912.	To June 30, 1912.
<b>Eastern division:</b>			
11 rivers.....	516	363	879
25 canals.....	632	663	1,315
26 pumping plants.....	42	374	416
Miscellaneous.....	123	167	290
<b>Western division:</b>			
14 rivers.....	892	494	1,386
25 canals.....	1,190	681	1,871
49 pumping plants.....	108	681	789
Miscellaneous.....	143	121	264
Discontinued stations.....	216		216
<b>Ponce division:</b>			
7 rivers.....	568		568
34 canals.....	774		774
Miscellaneous.....	4		4
<b>Cabo Rojo and Lajas division.</b>			
2 rivers.....	78	22	100
Miscellaneous.....	68	9	67
Discontinued stations.....	105		105
<b>Total.....</b>	<b>5,449</b>	<b>3,595</b>	<b>9,044</b>

## RIGHT OF WAY DIVISION.

Right of way has been secured under tentative agreements or by purchase for all projects, excepting such right of way as may be required for some of the lateral canals, and excepting a few parcels of land for which it has been or will be necessary to enter into condemnation proceedings.

The following table shows, by divisions, the acreage remaining to be purchased:

Project:	Acreage.	Project—Continued.	Acreage
Patillas Dam.....	27. 3560	Carite water power.....	7. 5690
Patillas Canal.....	124. 2124	Guamani Canal.....	53. 4330
Carite Dam.....	96. 5850	Melania Dam.....	121. 0000
Juana Diaz Canal.....	384. 0790	Toro Negro diversion....	10. 1400
Guayabal Dam.....	256. 8880		
Carite Tunnel.....	1330	<b>Total.....</b>	<b>1,081. 3954</b>

The summary following shows, by divisions, the number of transactions, and the areas and values involved where applicable, relative to condemnations, tentative agreements, damages, and conveyances.

Project	Condemnation proceedings.		Tentative agreements.				Crop damage settlements.				Conveyances.			
											Drawn.		Executed.	
	No.	Area.	No.	Area.	Amount.	No.	Area.	Amount.	No.	Area.	Amount.	No.	Area.	Amount.
		Acres.		Acres.			Acres.			Acres.			Acres.	
Patillas Dam.....			36	484.75	\$52,535.74	12	148.84	\$9,022.15	20	568.41	\$52,193.21	19	556.41	\$50,947.12
Patillas Canal.....			47	153.67	16,341.82	13	61.06	1,638.70	9	37.43	3,879.61	9	34.33	3,674.27
Carillo Dam.....			22	1,716.95	20,053.50	6	8.94	422.60	11	302.24	5,219.37	11	302.25	5,219.87
Carillo Tunnel.....			4	199.00	1,393.00	4	2.27	95.00	2	5.75	57.78	2	5.75	57.78
Carillo water power.....			5	124.63	515.75	1		13.00						
Guamual Canal.....			9	42.67	3,377.70									
Toro Negro diversion.....		13.09	7	105.80	3,755.00	4	2.00	205.00						
Guaynabal Dam.....		1.26	58	261.20	38,631.55	19	3.09	631.00	6	57.96	2,637.05	6	57.98	2,662.93
Guaynaba headquarters.....			1	2.00	120.00									
Juan Diaz Canal and Coama Dam.....		216.85	53	382.24	56,000.78	6	.25	143.00						
Melania Reservoir.....			1	17.00	860.00									
Telephone line.....			5	55.00	2,730.00	1	1.00	5.00						
Guaymas-Carillo.....			24		Gratis.									
Juan Diaz-Toro Negro.....														
Total.....	9	231.20	272	3,544.91	208,813.84	66	227.44	12,265.45	48	971.79	63,987.02	44	986.72	62,691.94
Total to June 30, 1910.....			77	1,931.99	56,570.02	20	57.02	1,817.41	6	73.73	9,546.90	6	73.93	9,546.90
Total from June 30, 1910 to June 30, 1911.....			106	1,067.80	45,586.42	31	157.19	9,588.69	35	872.92	52,769.96	20	726.51	44,362.49
Total from June 30, 1911 to June 30, 1912.....	9	231.20	89	545.12	104,357.40	15	13.23	579.35	7	19.14	1,670.16	18	151.28	8,682.53

## GENERAL TOPOGRAPHICAL SURVEYS.

During the years 1908 and 1909 topographical surveys covering about 150 square miles were made of the area irrigable by the proposed irrigation system and the irrigable lands of the Ponce district. As canal locations were completed it was found that these surveys failed to cover the entire area commanded, and additional surveys, including about 3,000 acres which could be irrigated by a moderate lift, were started in February over about 9 square miles, using the plane-table method. The execution of these surveys has been expensive, averaging, on account of the narrow and disconnected areas involved, about 45 cents per acre, as compared with an average cost of previous surveys of about 30 cents per acre. At the close of the year about 1,000 acres remained to be surveyed.

## MAIN OFFICE.

The main office at Guayama includes headquarters for technical supervision, designs, general records, pay-roll disbursements, financial and property accounts, and general transportation. All construction expenses are subdivided in the field into numerous account numbers, which, together with unit costs of construction work, are compiled in the office of the division engineers and the totals checked in the main office.

The special disbursing officer is the local agent of the insular paymaster and pays in the field all labor, mess-house vouchers, and minor bills. Payments are made alternate Saturdays on the eastern and western divisions, and since October, 1911, have aggregated \$296,910.50. All other accounts originating in Porto Rico are paid by treasurer's checks on vouchers prepared in the main office. Payments for purchases made in the United States are made by the disbursing officer at Washington.

The special agent of the bureau of supplies, printing, and transportation is responsible for all local purchases, except of minor supplies of local origin, which may be made by division engineers. During the year 2,426 local orders for purchases, approximating in value \$49,534, were placed. Many of these orders necessitated competitive bids and delivery of articles purchased to the divisions requisitioning them. Purchases in the United States are made through requisition upon the bureau of supplies, printing, and transportation by the New York purchasing agent. The long time required to secure deliveries through these channels was not properly anticipated. A few contracts for the delivery of material and supplies, requiring statements of conditions and specifications, have been entered into under approval of the Executive Council. The principal contracts of this nature have been for the purchase of 1,125,000 feet b. m. of lumber; C. H. Menge & Co., of Mobile, were the successful bidders, and the contract has been completed; for the purchase of 60,000 barrels of Portland cement the Atlas Portland Cement Co. were the successful bidders, and 26,409 barrels have been delivered; for the purchase of 7,500 tons of coal J. C. Wittenberg, of New York, was the successful bidder, and 2,579 tons have been delivered at the close of the fiscal year.

The special assistant auditor preaudits all vouchers, which during the year numbered 3,980 disbursement and collection and 931 journal vouchers. At present the duties of the special assistant auditor and the agent of the bureau of supplies are consolidated with those of the chief clerk.

During the fiscal year an approved system of accounting has been completed and enforced, the rewriting of all irrigation trust fund accounts was finished, the vouchering of previous purchases made in the United States and paid by the Washington disbursing officer were disposed of, and all current accounts have been kept up to date.

It is estimated that funds derived from the sale of bonds authorized September 18, 1908, will be exhausted by February 1, 1913, and the additional bonds authorized March 9, 1911, should be sold and funds made available early in January, 1913.

The financial statements show total expenditures to date by divisions, together with detailed statements of each division. The total expenditures to June 30, 1912, were \$2,391,259.97 and the expenditures for the fiscal year \$1,352,961.51.

Respectfully submitted.

JOHN A. WILSON,  
*Commissioner of the Interior.*

The GOVERNOR OF PORTO RICO,  
*San Juan, P. R.*

*Statement of net charges to projects during the fiscal year ending June 30, 1912.*

Project.	To June 30, 1911.	During fiscal year ending June 30, 1912.	To June 30, 1912.
Patillas Dam.....	\$275,521.45	\$325,068.22	\$600,609.67
Patillas Canal.....	192,690.46	92,670.57	285,360.03
Patillas lateral canals and outlets.....	67.70	1,113.23	1,180.93
Carite Dam.....	31,679.64	95,927.59	127,607.23
Carite Tunnel.....	17,843.08	17,067.02	34,910.10
Carite water power.....	4,062.89	58,164.31	60,217.20
Guamani Canal.....	3,262.62	30,563.79	33,826.41
Toro Negro diversion.....	53,184.61	42,672.63	95,857.24
Guayabal Dam.....	27,539.07	313,207.88	341,046.95
Juana Diaz lateral canals and outlets.....	31.50	470.00	501.50
General administration.....	119,361.05	71,195.76	190,556.81
Juana Diaz Canal and Coamo Dam.....	12,409.65	161,084.71	173,494.36
Melania Reservoir.....	355.74	526.00	881.74
Hydrographic division.....	(1)	25,209.20	25,209.20
Interest on bonds.....	300,000.00	120,000.00	420,000.00
<b>Total.....</b>	<b>1,038,298.46</b>	<b>1,352,961.51</b>	<b>2,391,259.97</b>

<sup>1</sup> Previous to Aug. 1, 1911, this was included in general administration.

*Summary of accounts to June 30, 1912.*

## GENERAL BALANCE SHEET.

		Debits.	Credits.
A	Patillas Dam.....	\$665,207.81	\$64,598.14
B	Patillas Canal.....	265,482.97	122.94
C	Patillas lateral canals and outlets.....	1,180.93	
D	Carite Dam.....	132,018.22	4,410.89
E	Carite Tunnel.....	34,936.11	26.01
F	Carite water power.....	60,217.20	
G	Guamani Canal.....	35,904.72	2,078.31
H	Toro Negro diversion.....	95,861.24	4.00
I	Guayabal Dam.....	361,887.40	20,840.45
K	Juana Diaz lateral canals and outlets.....	501.50	
L	General administration.....	193,012.33	2,455.42
M	Juana Diaz Canal and Coamo Dam.....	178,788.03	5,393.67
O	Melania Reservoir.....	882.34	
P	Hydrographic division.....	25,233.20	24.00
X-1	Bond issues.....		3,000,000.00
X-2	Premium of bonds.....		14,986.67
X-3	Interest on bonds.....	420,000.00	
X-4	Interest on bank balances.....		179,304.46
X-5	Treasurer, San Juan.....	718,297.05	
	Disbursing officer:		
X-6	Guayama.....	16,626.47	
X-7	Washington, D. C.....	141,064.25	
X-8	Unpaid labor.....		577.60
X-9	Vouchers payable.....		75,451.57
X-10	Treasurer's accounts collectible.....	3,051.66	
	Discharged rolls.....	10.90	
	<b>Total.....</b>	<b>3,370,154.23</b>	<b>3,370,154.23</b>

*Expenditures to June 30, 1912.*

## PATILLAS DAM.

	Engineering:		
1	Salaries.....	\$39,095.97	
2	Labor.....	2,855.59	
3	Travel.....	3,529.32	
4	Test pits and borings.....	3,060.11	
5	Right of way and damages.....	56,622.16	
6	Legal expenses.....	3,276.85	
7	Equipment.....	131,522.07	\$161.75
8	Supplies.....	59,904.09	31,597.78
9	Cement.....	195.10	
	Contract construction:		
10	Material.....	4,039.17	
11	Labor.....	84,729.93	

*Expenditures to June 30, 1912—Continued.*

## PATILLAS DAM—Continued.

		Debits.	Credits.
12	Extra work.....	\$11,255.73	.....
	Administration construction:		
13	Labor.....	142,124.73	.....
14	Material.....	111,991.98	.....
18	Commissary.....	6,218.42	\$1,357.15
19	Mess house.....	2,360.71	613.16
20	Hospital.....	3,087.24	.....
21	Real estate other than right of way.....	800.00	.....
23	Corral.....	1,012.59	579.31
24	Automobile expenses.....	542.68	13.22
28	Miscellaneous office expenses.....	883.22	.....
29	Suspense.....	3,535.43	6,967.25
34	Building, general.....	1,922.93	.....
35	Depreciation of equipment.....	451.45	23,275.10
38	Rent and maintenance of buildings.....	190.34	13.42
	Total of all accounts.....	665,207.81	64,598.14
	Less credit items.....	64,598.14	.....
	Net expenditures.....	600,609.67	.....

## PATILLAS CANAL.

	Engineering:		
1	Salaries.....	\$33,314.08	.....
2	Labor.....	6,088.72	.....
3	Travel.....	2,778.81	.....
4	Test pits and borings.....	379.36	.....
5	Right of way and damages.....	6,625.28	.....
6	Legal expenses.....	1,014.51	.....
7	Equipment.....	6,156.35	.....
8	Supplies.....	6,465.84	.....
9	Cement.....	732.39	.....
	Contract construction:		
10	Material.....	6,615.44	.....
11	Labor.....	120,133.80	.....
12	Extra work.....	3,708.14	.....
	Administration construction:		
13	Labor.....	77,357.83	.....
14	Material.....	13,783.98	.....
20	Hospital.....	150.45	.....
23	Corral.....	25.63	.....
28	Miscellaneous office expenses.....	118.74	.....
29	Suspense.....		\$17.00
34	Building, general.....	21.00	.....
35	Depreciation of equipment.....		105.94
38	Rent and maintenance of buildings.....	12.62	.....
	Total of all accounts.....	285,482.97	122.94
	Less credit items.....	122.94	.....
	Net expenditures.....	285,360.03	.....

## PATILLAS LATERAL CANALS AND OUTLETS.

	Engineering:		
1	Salaries.....	\$786.91	.....
2	Labor.....	218.39	.....
3	Travel.....	128.92	.....
8	Supplies.....	36.59	.....
28	Miscellaneous office expenses.....	5.82	.....
29	Suspense.....	4.30	.....
	Total of all accounts.....	1,180.93	.....

*Expenditures to June 30, 1912—Continued.*

## CARITE DAM.

		Debits.	Credits.
	Engineering:		
1	Salaries.....	\$13,533.31	.....
2	Labor.....	1,896.78	.....
3	Travel.....	1,066.62	.....
4	Test pits and borings.....	538.46	.....
5	Right of way and damages.....	5,742.73	.....
6	Legal expenses.....	942.19	.....
7	Equipment.....	19,161.18	.....
8	Supplies.....	10,424.37	.....
9	Cement.....	3,329.92	.....
	Contract construction:		
10	Material.....	435.17	.....
11	Labor.....	628.59	.....
12	Extra work.....	13.02	.....
	Administration construction:		
13	Labor.....	54,717.17	.....
14	Material.....	13,532.76	.....
18	Commissary.....	10.34	.....
19	Mess house.....	848.09	.....
20	Hospital.....	1,556.72	.....
21	Real estate other than right of way.....	425.06	.....
23	Corral.....	1,810.98	.....
28	Miscellaneous office expenses.....	242.84	.....
29	Suspense.....		\$1,546.53
31	Mess house profit and loss.....	1,161.98	.....
35	Depreciation of equipment.....		2,864.47
	Total of all accounts.....	132,018.22	4,410.99
	Less credit items.....	4,410.99	.....
	Net expenditures.....	127,607.23	.....

## CARITE TUNNEL.

	Engineering:		
1	Salaries.....	\$4,996.37	.....
2	Labor.....	1,035.02	.....
3	Travel.....	254.27	.....
4	Test pits and borings.....	158.97	.....
5	Right of way and damages.....	85.50	.....
6	Legal expenses.....	51.24	.....
7	Equipment.....	41.40	.....
8	Supplies.....	217.77	.....
9	Cement.....	10.62	.....
	Contract construction:		
10	Material.....	27.61	.....
11	Labor.....	28,006.04	.....
12	Extra work.....	24.86	.....
28	Miscellaneous office expenses.....	12.67	.....
29	Suspense.....	13.77	\$26.01
	Total of all accounts.....	34,936.11	26.01
	Less credit items.....	26.01	.....
	Net expenditures.....	34,910.10	.....

## CARITE WATER POWER.

	Engineering:		
1	Salaries.....	\$7,465.94	.....
2	Labor.....	393.31	.....
3	Travel.....	578.81	.....
4	Test pits and borings.....	4.10	.....
5	Right of way and damages.....	240.64	.....
6	Legal expenses.....	4.40	.....
7	Equipment.....	4,930.29	.....
8	Supplies.....	32,211.86	.....
	Administration construction:		
13	Labor.....	10,289.83	.....
14	Material.....	567.72	.....
20	Hospital.....	19.49	.....
23	Corral.....	427.79	.....
28	Miscellaneous office expenses.....	135.52	.....
29	Suspense.....	722.42	.....
34	Buildings, general.....	2,075.25	.....
35	Depreciation of equipment.....	150.00	.....
38	Rent and maintenance of buildings.....	9.83	.....
	Total of all accounts.....	60,217.20	.....

*Expenditures to June 30, 1912—Continued.*

## GUAMANI CANAL.

		Debits.	Credits.
	Engineering:		
1	Salaries.....	\$5,307.10	
2	Labor.....	954.94	
3	Travel.....	314.80	
5	Right of way and damages.....	1,205.14	
7	Equipment.....	958.85	\$199.94
8	Supplies.....	396.66	1,045.65
12	Extra work.....		18.60
	Administration construction:		
13	Labor.....	22,191.03	
14	Material.....	3,636.18	
20	Hospital.....	75.40	
23	Corral.....		9.64
28	Miscellaneous office expenses.....	39.56	
29	Suspense.....	803.48	808.48
35	Depreciation of equipment.....	21.58	
	Total of all accounts.....	35,904.72	2,078.31
	Less credit items.....	2,078.31	
	Net expenditures.....	33,826.41	

## TORO NEGRO DIVERSION.

	Engineering:		
1	Salaries.....	\$11,732.37	
2	Labor.....	3,874.91	
3	Travel.....	2,208.44	
4	Test pits and borings.....	86.81	
5	Right of way and damages.....	300.62	
6	Legal expenses.....	484.36	
7	Equipment.....	737.18	
8	Supplies.....	834.30	
9	Cement.....	3,512.62	
	Contract construction:		
10	Material.....	95.98	
11	Labor.....	70,038.56	
12	Extra work.....	1,706.66	
	Administration construction:		
13	Labor.....	28.25	
14	Material.....	2.08	
23	Corral.....	87.46	
28	Miscellaneous office expenses.....	14.66	
29	Suspense.....		\$4.00
35	Depreciation of equipment.....	117.08	
	Total of all accounts.....	95,861.24	4.00
	Less credit items.....	4.00	
	Net expenditures.....	95,857.24	

## GUAYABAL DAM.

	Engineering:		
1	Salaries.....	\$25,041.56	
2	Labor.....	1,776.07	
3	Travel.....	2,122.70	
4	Test pits and borings.....	374.79	
5	Right of way and damages.....	5,244.95	
6	Legal expenses.....	1,759.57	
7	Equipment.....	73,289.25	
8	Supplies.....	22,065.90	
9	Cement.....	2,837.35	
	Contract construction:		
10	Material.....	558.64	
11	Labor.....	9,099.90	
	Administration construction:		
13	Labor.....	107,328.68	
14	Material.....	105,381.72	
19	Mess house.....	512.34	
20	Hospital.....	604.87	
23	Corral.....	1,443.36	
24	Automobile expense.....	7.67	
28	Miscellaneous office expenses.....	905.82	
29	Suspense.....		\$1,045.51



*Expenditures to June 30, 1912—Continued.*

## GUAYABAL DAM—Continued.

		Debits.	Credits.
34	Buildings, general.....	\$347.00	
35	Depreciation of equipment.....		\$19,794.94
31	Mess house profit and loss.....	1,116.85	
38	Rent and maintenance of buildings.....	78.32	
	Total of all accounts.....	361,887.40	20,840.45
	Less credit items.....	20,840.45	
	Net expenditures.....	341,046.99	

## JUANA DIAZ LATERAL CANALS AND OUTLETS.

1	Engineering salaries.....	\$491.50	
8	Supplies.....	10.00	
	Total of all accounts.....	501.50	

## GENERAL ADMINISTRATION.

	Engineering:		
1	Salaries.....	\$43,722.83	
2	Labor.....	4,806.82	
3	Travel.....	8,624.17	
4	Test pits and borings.....	103.95	
5	Right of way and damages.....	436.98	
6	Legal expenses.....	3,203.46	
7	Equipment.....	24,318.61	
8	Supplies.....	25,146.40	
9	Cement.....	50.02	
	Administration construction:		
13	Labor.....	208.81	
14	Material.....		\$54.97
15	Dwellings at Guayama.....	8,090.05	
17	Office buildings.....	7,962.90	
21	Real estate other than right of way.....	64.46	
23	Corral.....	1,721.00	
24	Automobile expenses.....	2,203.30	
28	Miscellaneous office expenses.....	4,232.36	
29	Suspense.....	567.31	
35	Depreciation of equipment.....		163.61
	Executive:		
100	Salaries.....	6,223.10	
101	Travel and other expenses.....	908.37	
102	Supplies.....	40.29	
	Designing and general engineering:		
110	Salaries.....	1,596.72	
111	Expenses.....	131.13	
112	Supplies.....	47.52	
113	Labor.....	43.15	
	General surveys:		
115	Salaries.....	11,999.40	
116	Expenses.....	4,293.04	
117	Labor.....	8,156.74	
118	Supplies.....	1,281.32	
	Accounting:		
120	Salaries.....	6,345.18	
121	Expenses.....	146.13	
122	Supplies.....	322.17	
	Paymaster:		
125	Salaries.....	1,135.49	
126	Expenses.....	798.88	
127	Supplies.....	40.76	
	Property:		
130	Salaries.....	3,247.79	
131	Expenses.....	40.27	
132	Supplies.....	174.49	
133	Labor.....	246.12	
134	Rent of buildings.....	455.00	
	Purchasing:		
140	Salaries.....	1,660.50	
141	Expenses.....	625.23	
142	Supplies.....	122.41	
	Legal department:		
150	Salaries.....	1,156.50	
151	Expenses.....	137.23	
152	Supplies.....	78.17	

*Expenditures to June 30, 1912—Continued.*

## GENERAL ADMINISTRATION—Continued.

		Debits.	Credits.
	Automobile expenses:		
160a	Salaries.....		\$145.91
160	Salaries.....	\$570.17	
161	Expenses.....	47.17	
162	Supplies.....	635.89	
163	Repairs and depreciation.....	599.22	
	Corral:		
170	Salaries.....		1,502.73
170	Salaries.....	147.86	
171	Supplies.....	29.26	
172	Repair and depreciation of harness, wagons, and buildings...	152.27	
173	Forage.....	632.54	
175	Suspense account.....		134.18
180	Office buildings.....	273.88	
181	Maintenance of office buildings and ground.....	318.48	
182	Dwellings (construction).....	7.69	
183	Maintenance of dwellings.....	153.29	
184	Rent from dwellings.....		442.32
185	Miscellaneous receipts.....		11.70
190	Janitor service.....	585.59	
191	Lights, water, and ice.....	96.27	
192	Telegrams, telephone, and postage.....	406.09	
193	General office supplies.....	256.44	
194	Other general office expenses.....	1,191.52	
	Total of all accounts.....	193,012.23	2,455.42
	Less credit items.....	2,455.42	
	Net expenditures.....	190,556.81	

## JUANA DIAZ CANAL.

	Engineering:		
1	Salaries.....	\$18,208.49	
2	Labor.....	2,133.65	
3	Travel.....	1,642.09	\$5.02
4	Test pits and borings.....	1,292.09	
5	Right of way and damages.....	13,773.26	
6	Legal expenses.....	263.68	
7	Equipment.....	28,815.84	
8	Supplies.....	16,205.69	898.40
	Contract construction:		
10	Material.....	171.96	
11	Labor.....	1,833.33	
	Administration construction:		
13	Labor.....	75,538.02	
14	Material.....	8,414.21	
18	Commissary.....	0.52	
20	Hospital.....	88.61	
23	Corral.....	4,796.11	
24	Automobile expenses.....	764.70	
28	Miscellaneous office expenses.....	624.45	
29	Suspense.....	3,582.56	4,390.25
34	Buildings, general.....	143.45	
35	Depreciation of equipment.....	361.32	
38	Rent and maintenance of buildings.....	128.00	
	Total of all accounts.....	178,788.03	5,293.67
	Less credit items.....	5,293.67	
	Net expenditures.....	173,494.36	

*Expenditures to June 30, 1912—Continued.*

## MELANIA RESERVOIR.

		Debits.	Credits.
	Engineering:		
1	Salaries.....	\$97.00	
2	Labor.....	36.46	
3	Travel.....	17.27	
4	Test pits and borings.....	403.61	
5	Right of way and damages.....	1.00	
7	Equipment.....	18.22	
8	Supplies.....	1.96	
13	Administration construction, labor.....	254.88	
28	Miscellaneous office expenses.....	51.94	
	Total of all accounts.....	882.34	

## HYDROGRAPHIC DIVISION.

	Engineering:		
1	Salaries.....	\$18,279.53	
2	Labor.....	3,507.39	
3	Travel.....	2,555.09	
7	Equipment.....	329.23	
8	Supplies.....	40.60	
13	Administration construction, labor.....	15.50	
23	Corral.....	195.72	
28	Miscellaneous office expenses.....	310.14	
29	Suspense.....		\$24.00
	Total of all accounts.....	25,233.20	24.00
	Less credit items.....	24.00	
	Net expenditures.....	25,209.20	



TABLE No. 1.—Expenditures for maintenance of insular roads during the fiscal year ending June 30, 1912—Continued.

Road No.	Road sections.	Spread of larvia.	Tools purchase and repairs.	Landslides, cleanings, etc.		Bridges and culverts, repairs.	Overseer and foremen.	Miscellaneous.	Total.	Average cost of maintenance per kilometer.
				Cost.	Average cost per kilometer.					
1	San Juan-Ponce Playa.	\$14,924.03	\$1,598.02	\$8,020.68	\$62.95	\$1,083.45	\$4,367.34	\$2,709.24	\$102,984.74	\$908.35
2	Rio Piedras-Ponce (via Mayaguez).		161.11	3,690.48	21.45	3,289.74	2,749.17	699.75	29,415.44	171.02
3	Rio Piedras-Ponce (via Fajardo).		323.11	5,845.95	30.24	2,065.46	3,906.19	471.43	33,871.23	174.52
4	Cayey-Guayama.		66.16	1,045.66	62.81		564.33	143.25	8,089.00	346.96
5	Barraconquis-Humacao.		124.92	1,784.32	32.73	41.97	1,022.08	66.68	6,440.51	119.71
6	Ponce-Arecibo.		194.25	5,126.54	63.36	802.22	1,576.97	316.47	23,477.82	290.20
7	Caguas-Las Piedras.			62.17	5.62	22.05	172.50	14.09	23,191.14	473.28
8	Aguadilla-Adjuntas.		134.53	1,705.99	34.81	631.92	480.32	23,191.14	23,191.14	473.28
9	Mayaguez-Arecibo (via Las Marias).		3.14	1,708.28	64.46	22.70	443.75	68.16	2,628.11	99.09
10	Tron Alta-Barrios (via Corozal).		8.25	358.96	18.50		265.00	2.85	2,151.47	79.39
11	Mayaguez-Arecibo (via Las Marias).		72.44	1,686.54	46.96	87.56	848.91	7.54	7,806.26	216.24
12	Consumo-Maricao.			431.72	37.21	47.32	93.74	3.00	1,963.11	169.23
13	Mayaguez-Arecibo (via Las Marias).		26.08	853.50	35.40	2,062.13	701.67	42.34	7,028.65	157.90
14	Adjuntas-Albarran (via Barros).		85.01	830.09	50.92	376.00	108.34	26.00	7,732.72	122.12
15	Mayaguez-Las Vegas.			121.20	21.26		380.00	2.00	2,066.29	159.83
16	Mayaguez-Cabo Rojo.			78.30	12.30	63.18	128.50		1,084.24	191.97
17	Cabo Rojo-San German.			67.60	5.82		156.53		1,062.98	26.28
18	Morovis Branch.			119.37	23.87				584.95	51.28
19	Coamo-Santa Isabel.			178.20	21.48	1.20	60.00		162.07	32.41
20	Las Cruces-Cidra.			166.07	27.68	7.97	30.50		407.90	49.74
21	Trujillo Alto Branch.			120.29	10.02	83.36	257.00		296.22	44.37
22	Canovinas-Lola.					370.35	29.50	4.97	586.14	49.69
23	Vega Baja-Morovis.								409.39	58.45
	Vieques Road.		10.12							
	Naranjito Road.									
	Anasco-San Sebastian.									
	Total.	14,924.03	2,777.14	37,061.45	199.52	11,103.46	19,412.10	5,049.89	299,299.00	261.52
	GENERAL EXPENSES.									
	Machinery purchased.								15,213.76	15.34
	Machinery repairs.								7,486.65	7.55
	Inspection.								16,704.36	16.84
	Miscellaneous.								1,811.84	1.82
	Office force.								1,354.32	1.36
	Total.								301,899.93	304.49

TABLE No. 2.—*Comparative cost of maintenance.*

## AVERAGES.

Character of work.	1907	1908	1909	1910	1911	1912
Cubic meters broken stone, delivered, per kilometer.....	70.00	78.81	99.06	70.07	85.67	64.87
Cost per cubic meter.....	\$1.46	\$1.75	\$1.51	\$1.20	\$1.55	\$1.68
Cubic meters broken stone, placed, per kilometer.....	66.20	83.47	94.62	71.44	67.84	68.21
Cost of placing per cubic meter.....	\$0.82	\$0.80	\$0.76	\$0.75	\$0.85	\$0.89
Cost of inspection and overseeing per kilometer.....	\$46.15	\$48.96	\$50.77	\$51.64	\$38.93	\$34.42
Cost of machinery and tools per kilometer.....	\$10.18	\$9.92	\$6.50	\$3.17	\$3.65	\$25.69
Cost of spreading tarvia per kilometer.....						\$577.88
Cost of cleaning per kilometer.....	\$31.09	\$30.36	\$35.75	\$63.28	\$40.09	\$37.36
Cost of repair of bridges per kilometer.....	\$5.30	\$8.17	\$12.71	\$24.18	\$26.61	\$11.25
Cost of miscellaneous.....	\$2.15	\$4.00	\$4.66	\$4.79	\$4.54	\$8.28

## PERCENTAGE OF TOTAL COST.

Character of work.	1907	1908	1909	1910	1911	1912
Cubic meters broken stone, delivered, per kilometer.....	40.00	44.40	45.14	29.90	43.70	36.16
Cubic meters broken stone, placed, per kilometer.....	21.80	22.10	21.59	18.67	18.99	20.17
Cost of inspection and overseeing per kilometer.....	17.90	16.20	15.30	18.09	12.76	11.89
Cost of machinery and tools per kilometer.....	4.00	3.30	1.96	1.11	1.23	8.49
Cost of spreading tarvia per kilometer.....						4.98
Cost of cleaning per kilometer.....	12.00	10.00	10.77	22.11	13.15	12.36
Cost of repair of bridges per kilometer.....	2.00	2.70	3.84	8.45	8.68	3.72
Cost of miscellaneous.....	2.30	1.30	1.40	1.67	1.49	2.73
	100.00	100.00	100.00	100.00	100.00	100.00

Fiscal year ending June 30—	Kilometers maintained.	Total cost.	Cost per kilometer.
1907.....	790.0	\$206,574	\$261.50
1908.....	813.0	246,367	303.00
1909.....	900.6	298,852	331.84
1910.....	971.6	278,152	286.49
1911.....	974.0	296,943	304.86
1912.....	991.5	301,870	304.42



4	Cayey-Guayama.....	26.0	31.5	61,345.12	.7	7,400.00			•2,174.61
5	Barraquitas-Humacao.....	66.0							65,298.54
6	Ponce-Arecibo.....	82.0							•1,000.00
7	Caguas-Las Piedras (via San Lorenzo).	23.0							
8	Aguedilla-Adjuntas.....	63.0							•4,027.06
9	Bayamon-Correo.....	27.3							•2,283.61
10	Reyes Catolico-Coamo.....	57.0							•6,487.17
11	Manit-Juana Diaz.....	48.0							•5,114.16
12	San Lorenzo-Road No. 3 (via Fatillas).	28.0							
13	Mayaguez-Arecibo.....	74.5							
14	Consumo-Road No. 8.....	30.0							

11 3 bridges completed.  
 12 Mavilla bridge.  
 13 Lajas bridge.  
 14 Caltos bridge.  
 15 Structural material.

• Concrete pipes.  
 • No records.  
 • Herrera bridge.  
 • Repairs.  
 • Reconstruction.

12 concrete steel bridges over Jacaguas and Guayo Rivers.  
 13 wooden pile bridge.  
 14 Caguas bridge.  
 15 Grading.  
 16 Guajataca bridge.



TABLE No. 3.—Road construction in Porto Rico—Continued.

Road No.	Designation.	Kilometers.	Sections.	Completed by Spanish Government.		Completed by United States military government.		Completed by civil government.			
				Kilometers.	Cost.	Kilometers.	Cost.	Trust fund.		Regular maintenance to June 30, 1910.	
								Kilometers.	Cost.		
15	{Road No. 6 (Adjuntas)-Albionto	72.0	{Alto Bandera-Jayuya. Barros-Barranquitas. Barranquitas-Albionto. Usabon bridge. Yauco-Road No. 14.					12.0	\$34,361.14	2.5	\$10,157.49
16	Yauco-Road No. 14.	24.0	Lares-Jayuya					12.0	37,000.00	2.1	10,386.31
17	El Boqueron-Road No. 2	38.0	Cabo Rojo-Road No. 2.					10.8	21,000.00		
18	(via Cabo Rojo).	16.0	San German-Lajas					5.8	12,500.00		
19	{Road No. 11-Road No. 9 (via Morovis, Corozal y Naranjito).	36.0	{Road No. 11-Morovis. Road No. 9-Naranjito.			6.0	\$23,292.65	2.0	4,500.00		
20	Coamo-Santa Isabel.	14.0	Road No. 1-Coamo Springs					6.0	8,900.00		
21	Las Cruces-Conserito (via Cidra).	17.0	Las Cruces-Cidra.					1.7	5,000.00		
22	Road No. 3-Trujillo Alto.	8.0	Road No. 3-Trujillo Alto.					5.0	1,914.90		
23			Land damages. Auxiliary technical force, general expenses, travelling expenses, and machinery.					4.2	9,355.31	8.2	8,427.72
	Mayaguez-Maricao.	25.3	{Las Vegas-Maricao. Mayaguez-Las Vegas. Naguabo-Juncos.						2,637.89		\$ 1,324.75
	Alasco-San Sebastian.	27.0	Alasco-San Sebastian.								
	Cabo Rojo-San German.	25.0	Cabo Rojo-San German.								
	Vega Baja-Morovis.	12.0	Vega Baja-Morovis.								
	Vieques Road.	14.0	Vieques Road.								
	Conserito-Road No. 1.	10.0	Conserito-Road No. 1.					1.1	5,000.00		
	Sabana Grande-Road No. 14.	18.0	Sabana Grande-Road No. 14.								
	Total.	1,528.2		275.0	\$2,500,927.07	141.7	1,065,997.07	325.6	1,237,787.73	20.0	152,127.26

Grading.

13.3 kilometers abandoned by construction of La Plata bridge.

TABLE No. 3.—Road construction in Porto Rico—Continued.

Road No.	Designation.	Kilometers.	Sections.	Completed by civil government.				Total.	
				Convict labor.	Voluntary payments.	Kilometers.	Cost.		
1	San Juan-Ponce Playa.....	134.0	San Juan-Ponce Playa. Cataño-Reyes Católicos. Change in the road No. 2 for the new location of Reyes Católicos bridge. Reyes Católicos-Vega Alta. Vega Alta-Vega Baja. Vega Baja-Manatí. Manatí-Arecibo. Arecibo-Camuy. Camuy bridge. Camuy-Aguadilla. Aguadilla-Aguada. Aguada-Añasco. Mayaguez-Añasco. Añasco wooden bridge. Mayaguez-San German. San German-Sabana Grande. Sabana Grande-Yauco. Ponce-Peduelas. Peduelas-Yauco. Cataño-Río Piedras. Martín Peña-Bayamon. Reyes Católicos bridge.	\$1,300.00		2.1	\$8,238.86	134.0 18.5 2.1 8.4 8.5 12.1 26.0 12.3 42.0 5.1 2.0 11.9 20.0 8.0 10,000.00 69,077.13 17.2 14.5 4.0	\$1,474,189.76 168,452.97 8,238.86 26,000.00 20,270.75 42,979.98 80,362.49 49,644.15 3,000.00 57,430.26 6,997.23 63,996.07 5,660.00 20,726.06 16,500.45 10,000.00 69,077.13 68,807.67 100,282.12 8,263.51 10,268.44 64,500.00
2	Río Piedras-Ponce.....	203.1				5.1 2.0 2.9 14.5 17.2 3.4	\$6,997.23 63,996.07 5,660.00 12,423.79 64,627.67 100,282.12 7,195.36 10,268.44 154,500.00	42.0 5.1 2.0 11.9 20.0 8.0 10,000.00 69,077.13 17.2 14.5 4.0	57,430.26 6,997.23 63,996.07 5,660.00 20,726.06 16,500.45 10,000.00 69,077.13 68,807.67 100,282.12 8,263.51 10,268.44 64,500.00

1 Reconstruction Camuyes wooden bridge.  
2 And survey.  
3 And grading in 21.5 kilometers and survey.

1 Reconstruction Caguas wooden bridge.

2 And repair of 5.5 kilometers.

3 Grading.

4 And survey from Vega Baja to Manati and part of survey from Manati to Arecibo.

5 And survey.

6 Grading in 9.5 kilometers.

7 Completed.

8 And repair of 2 bridges and construction of 5 concrete pipes.

9 And grading in 21.5 kilometers and survey.

10 New wooden bridge.

11 And important repairs.

TABLE No. 3.—Road construction in Porto Rico—Continued.

Road No.	Designation.	Kilometers.	Completed by civil government.						
			Sections.	Special appropriations.				Total.	
				Convict labor.	Voluntary payments.	Kilometers.	Cost.		
3	Ponce-Rio Piedras.	206.0	Ponce-Guayama.....			12.5	\$11,998.99	56.0	\$57,621.07
			Guayama-Arroyo.....					7.0	26,216.70
			Arroyo-Puerto Blanco.....					4.0	8,212.27
			Maimabo-Petillas.....			17.5	31,000.00	17.5	31,000.00
			Yabucoa-Maunabo.....					9.0	43,000.00
			Humacao-Yabucoa.....	\$3,285.48				15.0	30,800.71
			Naguabo-Naguabo Playa.....			4.2	19,997.90	2.0	4,000.00
			Humacao Playa-Naguabo Playa.....					2.0	19,997.90
			5 wooden bridges on pile foundations.					4.2	13,400.00
			Fajardo-Naguabo Playa.....						
4	Cayey-Guayama.	26.0	Mameyes-Fajardo.....			4.2	2,000.00	18.8	34,870.50
			Loiza-Caguas.....			5.8	12,205.12	17.8	48,205.12
			Rio Piedras-Mameyes.....			2.6	4,500.00	2.6	4,500.00
			Pila bridges over Grande and Espiritu Santo Rivers.....					32.2	70,928.73
			Mameyes bridge.....				111,200.00		11,200.00
			Carolina bridge.....				2,800.00		3,427.41
			Espiritu Santo bridge.....				\$ 627.41		176,798.64
			Rio Grande bridge.....				11,500.00		6,887.84
			Cayey-Guayama.....				\$6,887.84		111.54
			Caguas-Aguas Buenas.....				\$111.54		507,870.93
5	Barranquitas-Humacao.	66.0	Caguas-Humacao Playa.....			.5	\$ 3,000.00	9.6	4,000.00
			Camero-Barranquitas.....			9	2,806.26	39.9	272,664.46
			Caguas bridge.....			16.5	138,518.09	16.6	138,518.09
			Barranquitas bridge.....	12.60			42,656.41		142,669.01
			Rio Hondo bridge.....				18,200.00	3,200.00	
							17,496.00	7,496.00	

6	Ponce-Arecibo.....	52.0	Ponce, kilometer 15, Caguasitas. Defending, kilometer 16. Adjuntas-Utuado. Aguas. Retaining wall Camilco. Arecibo-Bacuray. Adjuntas out-off. Utuado bridge. Caguas-San Lorenzo. Aguadilla-San Sebastian. San Sebastian-Lares. Lares-Adjuntas. Bayamon-Correo. La Plata bridge. Milas bridge. Guayama bridge. Reyes Catolico-Corozoal. Corozoal-Barros. Manati-Clabes. Manati River bridge. Clabes-Juana Diaz. Puerto Blanco-Pacillas. Mayaguez-Las Marías. Lares-Arecibo. Consumo-Maricao. Road No. 16-Road No. 8. Alto Banderas-Jayuya. Barros-Barranquitas. Barranquitas-Albomito. Usabon bridge. Lares-Road No. 14. Cabo Rojo-Road No. 2. San German-Lajas. Road No. 11-Morovis. Road No. 9-Naranjito. Road No. 1-Coamo Springs. Las Cruces-Cidra. Road No. 3-Trujillo Alto. Land damages. Auxiliary technical force, general expenses, travelling expenses, and machinery.	59.5	585,427.95 90,000.00 79,000.00 85,000.00 17,407.00 42,726.00 127.00 26,111.94 60,230.91 84,464.53 144,703.55 116,225.24 80,499.25 367,363.53 134,900.00 19,000.00 13,198.14 15,000.00 76,347.16 29,896.62 140,500.55 128,893.47 122,710.88 3,284.90 143,438.77 48,009.15 42,502.46 16,149.28 73,763.68 59,413.64 21,000.00 19,361.14 141,012.74 12,500.00 4,500.00 37,192.66 43,691.16 1,914.90 13,427.72 20,680.06 2,637.89 145,624.92
7	Caguas-Las Piedras (via San Lorenzo)	23.0	2.3	26,111.94	10.3
8	Aguadillo-Adjuntas.....	63.0	6.1	36,364.41	6.1
9	Bayamon-Correo.....	27.3	10.8	77,499.25	37.8
10	Reyes Catolico-Coamo.....	57.0	8.3	122,184.10	12.2
11	Manati-Juana Diaz.....	48.0	6.1	34,900.00	27.3
12	San Lorenzo-Road No. 3 (via Patillas)	28.0		9,000.00	
13	Mayaguez-Arecibo.....	74.5		3,198.14	
14	Consumo-Road No. 8.....	30.0		5,000.00	
15	Road No. 6 (Adjuntas)-Albomito.....	72.0	14.2	29,896.62	16.0
16	Yauco-Road No. 14.....	24.0	13.5	48,009.15	6.1
17	Lares-Jayuya (via Utuado).....	38.0	4.6	30,107.77	13.0
18	El Boqueron-Road No. 2 (via Cabo Rojo).....	16.0	5.5	16,149.28	27.0
19	San German-El Boqueron (via Lajas).....	18.0	2.3	23,001.00	13.5
20	Road No. 11-Road No. 9 (via Morovis, Corozal y Naranjito).....	36.0	7.0	12,018.33	11.6
21	Coamo-Santa Isabel.....	14.0		9,361.14	20.0
22	Las Cruces-Correo (via Cidra).....	17.0		141,012.74	16.4
23	Road No. 3-Trujillo Alto.....	8.0	2.0	5,000.00	21,000.00

1 Completed.  
2 And grading in 21.5 kilometers and survey.  
3 New wooden bridge in construction.  
4 And reconstruction.  
5 Wooden bridge over Valenciano River.

6 Survey.  
7 And approach of Arecibo side with a culvert.  
8 And grading in 3 kilometers.  
9 Cialitos bridge.  
10 And grading in 3.5 kilometers and substantial repair in 10 kilometers of road Juana Diaz-Villalba.

11 Grading in 3.5 kilometers.  
12 And grading in 9.5 kilometers and land slides.  
13 And survey.  
14 Reconstruction.



TABLE NO. 3a.—Road construction in Porto Rico.

		Kilometers.
Spanish Government:		
October 18, 1898		275.0
American Government:		
June 30, 1899		
June 30, 1900		69.2
June 30, 1901		67.0
June 30, 1902		72.2
June 30, 1903		81.0
June 30, 1904		69.0
June 30, 1905		82.9
June 30, 1906		38.0
June 30, 1907		30.7
June 30, 1908		103.7
June 30, 1909		92.3
June 30, 1910		4.9
June 30, 1911		16.1
June 30, 1912		67.4
Total.....		794.4
		1,069.4

TABLE NO. 4.—Comparative average cost per cubic meter of excavation on insular roads during the fiscal year ending June 30, 1912, by convicts and free laborers.

Road section.	Convict labor.	Free labor.	Remarks.
Vega Alta-Vega Baja.....		\$0.342	Tosca, 5 per cent; earth, 95 per cent.
Manati-Barceloneta.....		.237	Rock 4 per cent; tosca, 3 per cent; earth, 93 per cent.
Barceloneta-Arecibo.....	\$0.124	.332	Rock, 12 per cent; tosca, 2 per cent; earth, 86 per cent.
Arecibo-Camuy.....		.243	Rock 4 per cent; earth, 96 per cent.
Aguada-Rincon.....		.352	Rock, 28 per cent; earth, 72 per cent.
Rincon-Afiasco.....		.303	Rock, 15 per cent; earth, 85 per cent.
Ponce-Pañuelas.....	.134	.361	Rock, 20 per cent; tosca, 50 per cent; earth, 30 per cent.
Pañuelas-Guayanilla.....	.161	.312	Rock, 30 per cent; tosca, 50 per cent; earth, 20 per cent.
Guayanilla-Yauco.....	.165	.341	Rock, 30 per cent; tosca, 50 per cent; earth, 20 per cent.
Arecibo-Lares.....	.202	.402	Rock, 30 per cent; tosca, 60 per cent; earth, 10 per cent.
La Plata-Naranjito.....		.25	Rock, 10 per cent; tosca, 8 per cent; earth, 82 per cent.

NOTE.—In work done by convicts, deduction is made for meals that are paid by the office of health, charities, and corrections.

TABLE NO. 5.—*Water privileges granted by the executive council and reported upon by the commissioner of the interior.*

Applicant.	Date of approval.	Hacienda.	Municipality.	River from which taken.
Carmen S. de Javierre and Manuela S. de Gil.	Sept. 12, 1911	.....	Mayaguez.....	Estero.
Manuel Mayoral.....	.....do.....	.....	Ponce.....	Inabon.
Alfredo Ramirez y Rosell.	Sept. 30, 1911	.....	Cabo Rojo.....	Estero.
O. F. Bravo.....	.....do.....	.....	.....do.....	Guanaibito.
Ramon Valdes.....	Oct. 2, 1911	Central Ana Maria....	Mayaguez.....	Añasco.
Sucesores de Bianchi...	Oct. 5, 1911	Pagan, Esperanza, Librada.	Añasco.....	Do.
J. & F. Bianchi.....	Nov. 6, 1911	Altigracia, Elisa, Garrossi, Arrillaga Playa, Pesante.	Mayaguez and Añasco.	Do.
Camuy Sugar Co.....	Dec. 19, 1911	Central Camuy.....	Camuy.....	Camuy.
Plata Sugar Co.....	.....do.....	.....	San Sebastian.	Culebrinas.
Utunado Sugar Co.....	Jan. 22, 1912	.....	Utunado.....	Grande de Arecibo.
Municipality of Yauco..	Feb. 14, 1912	.....	Yauco.....	Duey.
Municipality of Carolina.	Feb. 22, 1912	.....	Carolina.....	Grande de Loiza.

Applicant.	Area.	Liters per second.	Purposes of.	Remarks.	File No.
Carmen S. de Javierre and Manuela S. de Gil.	150	34.0	Irrigation.....	.....	243
Manuel Mayoral.....	.....	26.0	Industrial.....	To be returned to river.....	245
Alfredo Ramirez y Rosell.	52	15.0	Irrigation.....	.....	247
O. F. Bravo.....	100	27.3	.....do.....	.....	248
Ramon Valdes.....	.....	51.0	Industrial.....	To be returned to river.....	252
Sucesores de Bianchi...	970	156.9	Irrigation.....	.....	253
J. & F. Bianchi.....	931	150.6	.....do.....	.....	254
Camuy Sugar Co.....	.....	190.0	Industrial.....	To be returned to river.....	259
Plata Sugar Co.....	.....	190.0	.....do.....	.....do.....	260
Utunado Sugar Co.....	.....	128.0	.....do.....	.....do.....	265
Municipality of Yauco..	.....	30.0	Waterworks.....	Water supply for that town.....	266
Municipality of Carolina.	.....	20.0	.....do.....	.....do.....	267

TABLE NO. 6.—Total cash receipts and expenditures, bureau of insular telegraph.

## TELEGRAPH.

Month.	Number of paid messages.	Earnings.	Maintenance and operation.	Profits.	Loss.
<b>1911.</b>					
July.....	19,077	\$5,448.57	\$222.31	\$5,226.26	.....
August.....	16,252	4,788.52	4,789.66	.....	\$1.14
September.....	17,215	4,940.77	4,491.40	449.37	.....
October.....	16,260	4,850.77	9,930.87	.....	5,080.10
November.....	16,006	4,957.24	5,088.69	.....	81.45
December.....	18,930	5,590.81	5,082.38	508.43	.....
<b>1912.</b>					
January.....	18,803	5,557.31	6,811.39	.....	1,254.08
February.....	18,079	5,047.93	5,193.10	.....	145.17
March.....	17,813	5,523.13	5,213.96	309.17	.....
April.....	17,431	4,933.95	5,478.22	.....	544.27
May.....	17,630	4,826.66	5,586.70	.....	760.04
June.....	21,861	6,695.44	4,770.93	1,924.51	.....
<b>Total.....</b>	<b>222,557</b>	<b>63,161.10</b>	<b>62,609.61</b>	<b>8,417.74</b>	<b>7,866.25</b>

## TELEPHONE.

Month.	Number of paid messages.	Tolls.	Rental.	Total.	Maintenance and operation.	Profits.	Loss.
<b>1911.</b>							
July.....	1,804	\$406.25	\$291.30	\$697.55	\$24.70	\$672.85	.....
August.....	1,468	374.55	283.00	657.55	532.19	125.36	.....
September.....	1,605	314.56	280.50	595.06	499.06	96.01	.....
October.....	1,587	418.56	274.00	692.56	1,103.43	.....	\$410.87
November.....	1,444	356.20	259.00	615.20	569.85	55.35	.....
December.....	1,456	454.60	256.00	710.60	564.71	145.89	.....
<b>1912.</b>							
January.....	1,480	445.88	264.00	709.88	756.82	.....	46.94
February.....	1,338	412.00	269.00	681.00	577.01	103.99	.....
March.....	1,728	459.52	268.50	728.02	579.33	148.69	.....
April.....	1,641	466.61	271.50	738.11	608.69	129.42	.....
May.....	1,732	523.09	269.00	792.09	620.74	171.35	.....
June.....	1,876	603.41	246.00	849.41	530.10	319.31	.....
<b>Total.....</b>	<b>19,159</b>	<b>5,235.23</b>	<b>3,231.80</b>	<b>8,467.03</b>	<b>6,956.62</b>	<b>1,968.22</b>	<b>457.81</b>

## TOTAL.

Month.	Number of free messages.	Total number of messages.	Earnings.	Maintenance and operation.	Profits.	Loss.	Deficit and surplus.
<b>1911.</b>							
July.....	1,178	22,069	\$6,146.12	\$247.01	\$5,899.11	.....	+\$5,899.11
August.....	1,123	18,843	5,446.07	5,321.85	125.36	\$1.14	+ 124.22
September.....	923	19,743	5,535.83	4,990.45	545.38	.....	+ 545.38
October.....	1,019	18,866	5,543.33	11,034.30	.....	5,490.97	- 5,490.97
November.....	1,100	18,560	5,572.44	5,598.54	55.35	81.45	- 26.10
December.....	930	21,316	6,301.41	5,647.09	654.32	.....	+ 654.32
<b>1912.</b>							
January.....	1,192	21,475	6,267.19	7,568.21	.....	1,301.02	- 1,301.02
February.....	935	20,352	5,728.93	5,770.11	103.99	145.17	- 41.18
March.....	950	2,491	6,251.15	5,793.29	457.86	.....	+ 457.86
April.....	886	19,968	5,672.06	6,086.91	129.42	544.27	- 414.85
May.....	853	20,215	5,618.75	6,207.44	171.35	760.04	- 588.69
June.....	2,255	25,992	7,544.85	5,301.03	2,243.82	.....	+ 2,243.82
<b>Total.....</b>	<b>13,344</b>	<b>229,860</b>	<b>71,628.13</b>	<b>69,566.23</b>	<b>10,385.96</b>	<b>8,324.06</b>	<b>+ 2,061.90</b>

*Balance to the credit of the bureau.*

Free messages.....	\$15,965.01
Half-rate messages.....	2,839.79
Net profit.....	2,061.90
<b>Total.....</b>	<b>20,866.70</b>

\$9,924.71—\$7,862.81—\$2,061.90, net gain.



TABLE No. 7.—Summary of expenditures by the bureau of insular telegraph for maintenance and operation during the fiscal year ending June 30, 1912.

Months.	Repairs and maintenance of lines.									
	Poles.		Line wire.		Insulation.	Instru- ments.	Linemen, salaries, labor.	Transportation.		
	Iron.	Wood.	Iron.	Copper.				Materials.	Labor, teams.	Miscella- neous.
1911.										
July.....							\$177.50	\$45.15		
August.....							1,029.70	183.90		\$4.00
September.....						\$15.15	1,754.76	88.68	\$2.50	15.82
October.....							1,490.42	156.30	15.31	312.86
November.....		\$778.43		\$7.26	\$87.33		1,773.51	158.20		254.65
December.....							16.94	11.39		107.32
1912.										
January.....	\$43.76			1,072.66	101.79		900.72	72.96	2.50	779.57
February.....						280.00	998.60	65.30	9.55	58.53
March.....		352.64				301.94	739.74	280.00	4.00	7.55
April.....	4.40		\$4.40			3.98	795.29	82.79		59.05
May.....						2.48	106.65	27.48	6.75	85.06
June.....		110.57				220.80	685.88	61.19		42.89
Total.....	48.16	1,241.64	4.40	1,079.92	189.12	824.53	8,319.71	1,282.52	40.61	1,799.30

Months.	Operation of system.								General office and stores.		Total.	
	Salaries.	Light.	Rent.	Printing, stationery.	Transportation.		Telephone rentals.	Miscellaneous.	Salaries.	Trans- porta- tion.		Miscella- neous.
					Matе- rial.	Em- ployees.						
1911.												
July.....	\$18.99	\$46.59	\$145.00		\$1.80	\$39.49		\$5.37	\$282.43		\$4.99	\$247.01
August.....	3,461.15	42.85	155.00		19.51			105.16	225.00	\$4.47		5,321.85
September.....	3,523.83	38.04	168.00	\$176.43	5.12			145.22	496.00			4,990.45
October.....	1,775.65	39.49	161.00	115.63	5.05	.72		240.84	496.00		7.03	11,034.30
November.....	3,662.67	39.49	161.00					57.41	257.50		110.02	5,698.54
December.....	4,390.11	39.74	159.00	53.90			\$6.00	642.81	200.36		19.02	5,647.09
1912.												
January.....	3,695.31	43.78	153.00	50.89	8.95	56.50	60.05	130.32	257.49		57.46	7,668.21
February.....	3,359.66	63.38	165.00	188.57	16.67	13.76		175.99	265.00		115.96	5,770.11
March.....	3,436.19	49.09	159.00	3.52	69.99	22.73	18.70	177.23	327.51		26.73	5,763.29
April.....	3,620.98	56.08	138.00	629.72	10.00	131.05	17.00	218.33	257.49		64.26	6,086.91
May.....	4,550.17	41.16	176.00	387.78	13.35	12.40	22.60	164.72	257.50		135.02	6,207.44
June.....	3,448.19	36.59	160.50		15.30	61.53		219.75	343.72		104.45	5,301.03
Total.....	44,242.90	496.78	1,774.50	1,606.44	167.94	338.47	124.95	2,283.05	3,168.90	4.47	646.72	69,566.23

*Apportionment of expenses.*—Telegraph, \$82,000.61; telephone, \$6,966.62; total, \$88,966.23.

TABLE No. 7a.—Summary of expenditures by the bureau of insular telegraph for extension of lines and additions to plant, etc., during the fiscal year ending June 30, 1912.

Months.	Extension of lines and additions to plant.						Reconstruction.						Total.				
	Poles, wood.	Line wire, copper.	Insulation.	Instruments.	Linemen, salary labor.	Transportation.			Poles, wood.	Line wire.		Instruments.		Linemen, salary labor.	Transportation.		
						Material.	Labor, teams.	Miscellaneous.		Iron.	Copper.				Material.	Labor, teams.	Miscellaneous.
1911.																	
July.....	\$1,074.97																\$1,074.97
August.....					\$203.82				\$637.50								841.32
September.....					334.34												334.34
October.....	1,066.98	\$8.06			419.60	\$16.06	\$1.50	\$444.57								80.47	1,965.23
November.....					395.75	117.38											513.13
December.....	613.25	175.00	\$30.18	\$21.65	79.25	12.00		16.23					\$361.87		\$181.00		1,499.43
1912.																	
January.....																	
February.....					2.24									449.11	40.00		489.11
March.....							2.25							745.76	499.61		1,245.76
April.....							7.50							772.57	135.36		915.43
May.....									2,025.78					487.75	47.00		2,621.14
June.....										\$679.13	\$353.14			718.27	107.60	\$10.00	2,510.05
Total.....	2,755.20	181.06	30.18	21.65	1,498.00	156.19	1.50	477.62	2,693.28	579.13	383.14	4,286.77	1,012.63	10.00	1,014.20		15,396.50

Apportionment of expenditures.—Telegraph, \$13,855.96; telephone, \$1,539.56; total, \$15,395.52.

TABLE No. 8.—Statement, by stations, showing receipts and operating expenses, bureau of insular telegraph, for the year ending June 30, 1912.

Stations.	Line receipts.				Expenditures.				Gains.	Losses.
	Cash.	Value of half rates.	Value of free.	Total.	Salaries.	Rent.	Light.	Stationery, traveling expenses, postage, etc.	Total.	
Adjuntas	\$302.31	\$7.05	\$24.95	\$344.31	\$330.00		\$4.00	\$48.75	\$412.75	\$88.44
Aguada	59.72	10.00	16.36	86.08	43.04			3.00	46.04	
Aguadilla	1,612.99	53.05	83.98	1,750.02	1,620.00	\$110.00	6.00	180.00	1,806.00	135.98
Agua Buenas	167.10	5.26	12.60	185.96	120.00		4.00	30.90	154.90	
Albionito	828.06	13.98	42.31	884.35	1,020.00	56.50	5.00	71.00	1,152.50	268.15
Aseseo	401.14	7.18	8.12	416.44	420.00		4.00	80.50	504.50	58.06
Arecibo	1,697.00	70.94	107.03	1,774.97	1,420.00	132.00	19.20	108.00	1,669.20	
Arroyo	944.74	17.98	34.11	996.83	540.00	66.00	4.00	67.78	611.78	385.05
Barceloneta	174.35	6.38	20.22	200.95	105.47			9.03	114.50	
Barraquitas	205.13	7.51	32.10	244.74	180.00			23.39	203.39	41.35
Barros	358.34	10.07	13.42	381.83	180.00		1.95	23.70	205.66	176.17
Bayamon	456.97	25.25	88.65	570.87	540.00		8.55	68.30	616.85	43.98
Cabo-Rojó	413.66	16.41	62.04	492.10	420.00		4.00	50.01	474.01	8.09
Caguas	1,649.19	38.11	122.98	1,810.28	900.00		15.53	87.85	1,003.38	816.90
Cannuy	199.69	7.79	35.94	243.42	540.00		4.00	62.33	606.33	363.01
Carolina	254.17	14.95	40.68	309.80	1,840.00		4.00	62.40	606.40	268.60
Caye	1,547.95	18.95	261.98	1,828.88	1,360.00	88.00	4.00	107.72	1,559.72	269.16
Cela	93.93	1.27	95.94	191.14	660.00	88.00	4.00	88.00	840.00	744.06
Ciales	394.71	6.32	21.09	422.12	240.00			28.90	268.90	153.22
Cidra	364.79	4.49	82.46	451.73	240.00			28.90	268.90	182.83
Coamo	501.76	24.60	82.36	608.72	1,020.00	55.00	4.00	60.85	1,139.85	538.09
Comerio	353.71	16.18	8.21	378.10	180.00			23.83	203.83	164.24
Corosa	76.43	5.67	20.36	102.46	180.00			4.90	184.90	108.47
Fajardo	1,782.64	22.75	126.02	1,931.41	1,260.00	66.00	4.00	80.91	1,410.91	520.50
Guayama	1,755.06	178.27	112.36	2,045.69	660.00	88.00	4.00	80.90	832.90	1,212.79
Gurabo	447.12	6.37	47.45	500.94	540.00		4.00	64.58	608.58	134.13
Hatillo	73.50	3.29	22.04	99.03	49.50			5.12	54.62	44.41
Humacao	2,717.59	112.83	182.94	3,013.36	1,440.00		13.65	133.52	1,587.17	1,426.19
Isabela	230.36	3.93	16.33	249.65	540.00			66.54	606.54	366.89
Juana Diaz	201.20	8.20	52.06	261.46	300.00			20.53	320.53	99.08
Juncos	1,240.86	12.22	42.38	1,295.46	660.00	64.00	8.90	66.43	801.32	494.14
Lares	737.02	10.22	51.32	798.56	420.00	66.00	4.00	51.03	531.03	267.53
Las Marias	63.01	8.84	26.52	98.37	180.00			22.81	202.81	139.80
Las Piedras	16.94		16.94	33.88	8.42			8.92	17.34	104.44
Manatí	323.50	28.66	71.41	423.57	1,020.00		4.00	66.54	1,090.54	667.07
Maricao	89.37	7.72	96.31	193.40	180.00			23.81	203.81	10.41
Maunabo	353.36	4.91	12.22	370.49	240.00			30.09	270.09	
Mayaguez	3,029.46	122.04	170.51	3,322.01	3,498.17	165.00	30.00	299.04	3,932.21	611.20



TABLE NO. 9.—*Collections at the several ports of the island during the fiscal year ending June 30, 1912.*

## DIVISION OF HARBORS AND DOCKS.

Month.	San Juan.	Ponce.	Mayaguez.	Arroyo.	Humacao.	Fajardo.	Aguadilla.	Total.
<b>1911.</b>								
July.....	\$4,075.48	\$320.15	\$670.66	\$88.82	\$126.46	\$228.19	\$78.97	\$5,588.72
August.....	3,067.38	458.26	268.45	250.93	145.27	65.44	144.85	4,399.58
September.....	2,708.48	698.08	262.00	83.88	108.30	98.19	114.33	4,101.21
October.....	2,970.55	291.86	388.80	79.94	114.48	62.77	179.83	4,088.23
November.....	2,314.20	328.04	209.74	127.07	79.00	77.10	152.74	3,287.89
December.....	2,941.18	298.63	239.43	108.26	241.02	70.77	159.63	4,063.82
<b>1912.</b>								
January.....	3,728.76	814.89	353.20	340.04	115.76	192.37	297.30	5,842.32
February.....	2,748.58	500.52	674.96	250.88	209.81	195.80	107.31	4,687.86
March.....	3,229.88	469.42	227.88	193.83	303.82	107.65	103.10	4,635.58
April.....	3,410.10	481.18	441.96	209.86	298.43	144.27	96.19	5,080.99
May.....	3,238.46	380.32	367.69	221.33	127.69	123.70	106.18	4,565.37
June.....	2,417.98	248.81	272.66	95.22	352.55	106.60	146.13	3,639.96
Total.....	36,839.08	5,290.11	4,407.43	2,064.06	2,222.60	1,472.85	1,685.46	53,971.53

TABLE NO. 10.—*Number of vessels and tonnage entering ports of Porto Rico during the fiscal year ending June 30, 1912.*

	Humacao, San Juan.		Ponce.		Mayaguez.		Arroyo.	
	Num- ber.	Gross tonnage.	Num- ber.	Gross tonnage.	Num- ber.	Gross tonnage.	Num- ber.	Gross tonnage.
American steamers.....	321	1,061,859	196	626,633	246	721,499	96	279,568
American sailing.....	97	78,082	45	40,226	48	26,776	12	8,095
Foreign steamers.....	123	402,956	116	310,572	59	137,273	2	6,003
Foreign sailing.....	52	5,903	32	4,746	7	603	1	77
Total.....	593	1,538,800	389	982,177	360	886,151	111	293,743

	Humacao.		Fajardo.		Aguadilla.		Total American and foreign steam and sailing vessels.	
	Num- ber.	Gross tonnage.	Num- ber.	Gross tonnage.	Num- ber.	Gross tonnage.	Total vessels.	Total tonnage.
American steamers.....	80	220,564	30	86,392	86	268,581	1,065	3,255,086
American sailing.....	22	18,145	11	8,671	7	4,392	242	184,387
Foreign steamers.....	11	2,064	5	1,119	20	46,888	330	903,692
Foreign sailing.....	11	2,064	5	1,119	1	33	109	14,547
Total.....	113	240,773	46	96,182	114	319,894	1,726	4,357,724



## APPENDIX V.

### REPORT OF THE COMMISSIONER OF EDUCATION.

DEPARTMENT OF EDUCATION,  
OFFICE OF THE COMMISSIONER,  
San Juan, P. R., June 29, 1912.

SIR: I have the honor to submit herewith my annual report for the fiscal year ending June 30, 1912.

#### *Summary of statistics for the school year 1911-12.*

Number of different pupils actually enrolled in all schools, including special schools:

White—	
Males.....	72,500
Females.....	49,923
Total.....	122,423
Colored—	
Males.....	21,913
Females.....	16,321
Total.....	38,234
White and colored—	
Males.....	94,413
Females.....	66,244
Total.....	160,657

Number of different pupils enrolled during the year:

(a) In secondary schools (normal and agricultural departments of the university, high, and continuation schools).....	1,547
(b) In common schools.....	141,424
(c) In special schools (night schools, kindergartens, and charitable and correctional institutes).....	17,686
Average daily attendance for the school year of 171 days (in night schools 132 days).....	114,834
Average daily enrollment for the school year of 171 days (in night schools 132 days).....	125,299
Number of buildings in use for schools during the year.....	1,168
Estimated value of all insular school buildings <sup>1</sup> .....	\$821,409.66
Rental value of other buildings.....	75,576.20

Number of different teachers employed in the common schools at the end of the year:

White—	
Males.....	655
Females.....	888
Total.....	1,543

<sup>1</sup> Including entire expenditure made by the insular government under the direction of the department of education in connection with the acquisition of property and the erection of school buildings since the establishment of civil government.



Number of different teachers employed in the common schools at the end of the year—Continued.

Colored—	
Males.....	114
Females.....	119
Total.....	233
Total.....	1,776
White and colored—	
Males.....	769
Females.....	1,007

Number of different teachers employed in secondary schools at the end of the year<sup>1</sup>..... 83

Number of different teachers employed in special schools at the end of the year<sup>2</sup>..... 323

Monthly salary of teachers as fixed by law:

Rural teachers—	
First class.....	\$40. 00
Second class.....	35. 00
Third class.....	30. 00
Graded teachers—	
First class.....	55. 00
Second class.....	50. 00
Third class.....	45. 00
English graded teachers—	
First class.....	60. 00
Second class.....	55. 00
Third class.....	50. 00
Principal teachers—	
First class.....	80. 00
Second class.....	75. 00
Third class.....	70. 00
Teachers of English and special-work teachers.....	75. 00
Continuation teachers.....	83. 33

To which amounts were added allowances for house rent as follows:

Rural teachers..... Not less than \$3 nor more than \$8

Graded, English graded, and principal teachers. Not less than \$8 nor more than \$20

Total expenditures for school purposes during the fiscal year ending June 30, 1912:

By insular government..... \$980, 375. 28

By local government..... 386, 434. 88

As has been stated in a previous report, it has been my aim as commissioner of education for Porto Rico to accomplish the following results:

First. To provide instruction in the branches comprising a common-school education to all the children of school age in the island, this instruction to be both in English and in Spanish.

Second. To provide facilities for instruction in agriculture to the largest possible number of the pupils of suitable age.

Third. To introduce the subjects of manual training and domestic science into all the high and graded schools.

Fourth. To establish secondary schools at a sufficient number of points throughout the island to meet the needs of the people.

Fifth. To establish trade schools throughout the island.

We have fallen far short of realizing these educational ideas, yet with respect to the first four no inconsiderable results have been accomplished.

The importance of the first would, I believe, be granted by any person who considers that a representative form of government has been established in Porto Rico, and that its success depends largely upon the intelligence of the voter. At the time of the American occupation of the island there were found to be, roughly, 20,000 pupils in attendance upon its public schools. At the beginning of my administration,

<sup>1</sup> Six of these are duplicates.

<sup>2</sup> Two hundred and ninety-four of these are night school teachers and are duplicates.

five years ago, that is, for the school year 1906-7, there were 44,218 pupils in daily attendance upon the public schools, a fraction more than 4 per cent of the total population.

For the past year the average daily attendance has been 114,834, or 10.3 per cent of the total population of the island. Since by average daily attendance we mean the number of pupils who are in the schools every day of the nine school months, it does not by any means represent the total number of children who are in touch with the public school system.

The total number who thus attended was 160,657, or 14.4 per cent of the total number of inhabitants of the island.

Yet, with this extension of the common schools, the needs of the island are not by any means met. Before this can be accomplished provision must be made for at least double the number of common-school teachers now on the pay roll; roughly, 800 to eliminate the half-time pupils, and 1,000 more to carry the schools to the remotest corners of the island. Taking into consideration the prevailing large families throughout the island, it would seem probable that there are at least 350,000 children of school age as reckoned in the United States, i. e., between the ages of 6 and 18 years. Considering, however, the fact that the first attempt at anything like universal education in Porto Rico dates back but a dozen years, and that it took three centuries in the United States to create a general demand for secondary instruction, it does not seem probable that so general an extension of the teaching force will be needed at once. Yet such an increase should be contemplated in the ultimate plan.

More and more fully, too, the teachers for the common schools should be restricted to the output of the normal department of the University of Porto Rico. Heretofore the teachers have been largely recruited direct from the schools themselves by means of teachers' examinations. I have only the highest word of praise for the teaching force of the island. It is earnest, conscientious, and devoted. But the academic preparation of the schools plus the examinations for a teacher's license can never furnish the equivalent of a first-class normal preparation, and the schools can never be all that is desired until the latter is well-nigh universal as a prerequisite to the certificate to teach. Yet after all Porto Rico is as well off to-day in this respect as are many of the United States.

During the last school year steps of transcendent importance have been taken in the direction of providing agricultural instruction for the pupils of the Porto Rican schools. In fact, nothing less than the making of every public school the medium of such instruction is contemplated.

By a special ruling of the United States Commissioner of Education, a portion of the Federal fund known as the Nelson fund was made available for the instruction of the public school teachers of the island in agriculture and allied subjects to the end that it may be possible in the near future to include those subjects in the required course of study for all pupils. A strong faculty was secured, and beginning with January institutes of one week's duration have been held in each district headquarter town throughout the island. During the week of the institute the schools of the district have been closed, and practically all the teachers have been in attendance. The work of the institute is followed up by means of leaflets and outlines, and in every way possible the teachers are aided to fit themselves for the important duty of giving an agricultural setting to the work of the public schools. The teachers have manifested the greatest interest and enthusiasm in the work, which gives promise of great value. Dr. Claxton, United States Commissioner of Education, visited the island in May and spent two weeks visiting the institutes, expressing himself as pleased with their results.

It is a matter of great satisfaction to me that I could have seen this work begun before laying down my duties. It is my recommendation that the insular legislature recognize the work that is being done by the teachers of the island to fit themselves to give instruction in agriculture by providing for an increase in salary to such as pass an examination set by the department for teachers authorized to give instruction in this subject.

When I began my work in Porto Rico five years ago no provision was made for instruction in any of the manual subjects and not a single pupil in the public schools was receiving such instruction. It seems almost inconceivable that such should have been the case after eight years of American control, but such it was, and, in my opinion, the fact does not reflect upon the efficiency nor upon the interest of my predecessors in manual instruction. Each in his turn had endeavored to establish such forms of instruction, and during the administration of Dr. Lindsay a system of trade schools was organized in the larger towns of the island, which gave promise of much value; but the insular legislature at the session of 1907 failed to make appropriation for their continuance, and in June of that year they went out of existence. Since that time no appropriation has been made for their reestablishment, though schools of a similar

character are much needed. In part, however, their place has been taken by the introduction of courses in manual training, domestic science, and sewing in the regular school curriculum in a number of the larger towns of the island.

No pretense is made in these courses of teaching trades, yet their value is as great as is that of similar courses wherever they are found. The subject of manual training is included in the courses of study in 16 towns, with, roughly, 765 pupils, all in the upper grades, pursuing the work. Domestic science is offered in 13 towns with 361 pupils in attendance upon the courses, while special instruction in sewing is offered in no less than 54 towns, with more than 5,200 pupils taking the work.

All this seems but a meager accomplishment along lines which should be specially emphasized; but generous as is the insular legislature in furnishing funds for the extension of the school system along the more purely academic lines, it has been difficult to secure appropriations for any other purpose. It is, however, only fair to say that the difficulties have not generally been met in the lower house of the legislature.

In no other phase of educational work has progress been so rapid during recent years as in that of secondary instruction. During the five years of my administration the increase in average daily attendance for schools of all grades has been 160 per cent; for the secondary schools alone it was 761 per cent. This is, however, the natural result of the organization and of the passing of a sufficient number of years to permit the pupil to complete the common school course and enter the secondary schools.

During my administration there have been established 1 four-year high school at Arecibo, and 12 so-called continuation schools, which are secondary schools with two-year courses and with manual training and domestic science as the principal subjects. It seems probable to me that at least for many years to come the interest of the island can be served with the establishment of not more than two additional high schools—one in the central portion of the island and the other in the eastern part, preferably at Humacao. If it is possible to increase the number of high-school scholarships it would seem a wise provision to continue the present policy of granting them to residents of towns in which no high schools are situated.

The important problem of the establishment of trade schools throughout the island is one which I am leaving to my successor entirely unsolved. That it is an important one no person with any knowledge of the prevailing conditions can deny. The people of Porto Rico are of the motor type; are mechanically adept, and easily become skilled artisans. An adequate system of trade schools should be provided by generous legislative appropriation. Yet in my opinion this should be made as an additional appropriation to that already available, and not by a curtailment which would result only in closing schools already established. Although it is true that nearly as large a percentage of the population of Porto Rico is in the schools as is the case in the United States, and that the percentage is greater than for any other Spanish speaking people in the world, nevertheless it is my belief that nothing short of opportunities for universal elementary education should be provided.

In presenting this, my last of five annual reports, it is perhaps not out of place briefly to recapitulate the accomplishments of the quinquennium: Total enrollment in the public schools increased from 71,696 to 160,657, 124 per cent; average daily attendance in the common schools increased from 44,218 to 114,834, 160 per cent; enrollment in secondary schools increased from 182 to 1,547, 761 per cent; total expense for maintenance of public schools increased from \$908,794 to \$1,366,810.16, 50 per cent; per capita cost of instruction per pupil in attendance decreased from \$12.67 to \$8.51; number of pupils receiving some form of manual instruction increased from 0 to 6,329; number of pupils receiving agricultural instruction increased from 0 to 8,723; number of schools taught wholly in English increased from 202 to 947, 368.8 per cent; public school playgrounds established in 61 municipalities; public school libraries established in 225 schools; school banks established throughout the island.

The progress here shown would not have been possible, except for the enthusiastic interest of the people of Porto Rico in their schools; the sympathetic support of the school boards; the earnest and efficient work of the teachers and the loyal cooperation of those more intimately associated with me in the administrative duties of my office. One and all they have placed their personal interests second to those of the cause of education; and particularly is this true of the assistant commissioner, Mr. F. E. Libby, to whom is due, more largely than is generally known, or could be easily stated, whatever educational progress has been made of recent years in Porto Rico.

Respectfully,

E. G. DEXTER,  
*Commissioner of Education.*

The GOVERNOR OF PORTO RICO,  
*San Juan, P. R.*

## RÉSUMÉ OF THE ORGANIZATION OF PUBLIC EDUCATION IN PORTO RICO.

The organic act for Porto Rico provides:

"That the commissioner of education shall superintend public instruction throughout Porto Rico, and all disbursements on account thereof must be approved by him and he shall perform such other duties as may be prescribed by law, and make such reports through the governor as may be required by the commissioner of education for the United States, which shall annually be transmitted to Congress."

Beginning with the legislative session of 1900, school laws have been passed and from time to time amended, the present organization being, briefly, as follows:

The commissioner of education, appointed for a term of four years or at the pleasure of the President, is the head of the department of education, with full power of appointment over all the subordinates in the department, except of certain classes of teachers as hereinafter set forth. He is empowered to determine the course of study, the length of the school year within limitations prescribed by law, and the length of the school day. He is in charge of the examination and certification of teachers, and no expenditures of public moneys for school purposes, on the part either of the school boards or of any subordinates in the department, can be made without his approval. He is a member of the executive council, the upper house of the legislature, and ex officio president of the University of Porto Rico and of the trustees of the insular library.

Aside from the teaching force, the personnel of the department consists of the following: Assistant commissioner of education, secretary of the department, chief of the division of property and accounts, chief of the division of school-board accounts, 3 general superintendents of schools, and 41 supervising principals, each in charge of a district of the island. In addition, there are the private secretary to the commissioner and other clerical help to the number of 12.

The assistant commissioner is the head of the division of supervision, and has all the powers of the commissioner during the absence of the latter from the island. The secretary is the chief of the division of records and officially countersigns all teachers' certificates and other papers of record issued by the department. The chief of the division of property and accounts is custodian of all the property belonging to the department and is charged with keeping the salary list thereof. The chief of the division of school-board accounts forms the direct point of contact between the department and the school boards of the island.

The island of Porto Rico contains 70 units of political organization, known as "municipalities." Within each of these is elected a school board consisting of three members. Vacancies in these school boards caused by resignation, death, or incapacity are filled by the commissioner of education, the law requiring that appointments to vacancies be made from the same political party as that to which the previous member belonged. School boards have charge of all buildings occupied by the common schools (not high schools), employ the janitors, and pay the house rent of the teachers. They have the power to hold title to property, and may, under certain legal restrictions, negotiate loans. They may, with the approval of the commissioner of education, as may also the supervising principals, dismiss pupils from the schools and may suspend teachers pending the action of the commissioner. They must submit annually, three months before the beginning of the school year, to the commissioner of education for his approval, a list of teachers, properly qualified, whom they wish to elect to positions in their school systems, and after approval by the commissioner may elect such teachers. School boards submit to the commissioner of education, previous to the beginning of each fiscal year, a detailed statement of their desired expenditures for that year, and the approval of such a budget by the commissioner is the warrant for the expenditure of the school funds as thus set forth. Subsequent transfers of funds from one subhead to another within the budget necessitates separate approval.

The teachers of the island are divided into the following classes:

**First. Rural teachers.** These are in charge of the ungraded schools, for the most part in the rural districts, and receive salaries as follows: Rural teachers of the first class, \$40 per school month; of the second, \$35; and of the third, \$30. Persons entering the corps of rural teachers must remain three years in the third class, at the end of which period they are promoted to second if their work has been satisfactory. They may not be promoted from second to first class until after five years of successful experience as teachers, including the three years passed as third-class teachers. Rural teachers receive a monthly allowance, varying from \$3 to \$8, in lieu of house rent.

**Second. Graded teachers.** These are in charge of the graded schools in the cities and smaller centers of population. They are divided into Spanish graded teachers and English graded teachers, although the former class is rapidly decreasing in num-

ber and doubtless within a few years will no longer exist. The academic examination for both of these classes of teachers is the same, promotion to the English graded class being through a special examination given by one of the general superintendents or a high official of the department, to determine whether or not the candidate is capable of teaching successfully all the subjects of the common-school curriculum, using the English language as the medium of instruction. When such an examination is passed an additional compensation of \$5 per school month is received. In addition to the classification of graded teachers into English graded and Spanish graded teachers, they are classified for purposes of payment, as are the rural teachers, into graded teachers of first, second, and third class. Graded teachers of the first class receive a monthly salary of \$55; those of the second, \$50; and those of the third, \$45, with the \$5 additional in each instance to those who are certified to teach in English. Still, in addition to the compensation mentioned, is a payment by the school board in lieu of house rent varying from \$8 to \$20 per school month.

Third. Principal teachers. These teachers in charge of school buildings containing eight or more separate classrooms do not have charge of a grade. They are responsible to the commissioner of education, or his representatives, for the organization, discipline, and distribution of work in their schools, and to the school boards for the care of the buildings and public property. They are classified for purposes of payment, as are the rural and graded teachers, into principal teachers of the first, second, and third class. Principal teachers of the first class receive a monthly salary of \$80; those of the second, \$75; and those of the third, \$70. In addition to this monthly salary, which is paid by the department, they receive compensation from the school board in lieu of house rent, varying from \$8 to \$20.

The first two classes—the rural and graded—comprise the great mass of teachers in the common schools of the island. All three classes are elected, as already stated, by the school boards of the various municipalities from lists submitted to the commissioner of education for his approval. The following classes of teachers are appointed directly by the commissioner without intervention by the school boards:

First. Teachers of English. These are nearly all Americans, the great proportion graduates of colleges and normal schools in the United States. In the early years of the American occupation they were, as the name of the class would imply, teachers of English assigned to the various graded-school systems, going about from room to room giving instruction in the English language. By this plan the pupils received an hour or two of special instruction in English each day, but since all the other subjects of the curriculum were being taught in Spanish, but slight progress seems to have been made in the acquisition of the English language. Consequently the plan has been modified, and at present teachers of English serve as graded teachers in the higher grades of the school system, giving instruction in all the subjects of the grade to which they are assigned, except in the Spanish language. The law makes it necessary that at least one teacher of English be assigned to each municipality of the island having a graded-school system, and this, under present conditions, means every municipality of the island. In the larger cities a considerable number of teachers of English are in service, the total number provided for by law for the present school year being 112. The salary is \$75 per school month, without allowance for house rent.

Second. Special teachers in continuation schools. The continuation schools of the island, as explained later in this report, are special manual-training and trade schools, established in 12 municipalities of the island. In each are at least two teachers, one a specialist in manual training, the other a specialist in domestic science, and each able to give the academic and scientific subjects of the first two years of the high-school course, so far as time is found for these subjects in addition to that required for manual-training and domestic-science work. Special teachers in continuation schools receive a salary of \$83.33 per school month. The budget for the coming fiscal year provides for 24 such teachers.

Third. Special teachers. This class comprises teachers of music and art and kindergarten teachers. Such teachers are assigned only to the larger towns of the island. The budget provides for 20 teachers of this class, at a salary of \$75 per school month.

Fourth. Agricultural teachers. Teachers of this class are assigned to the elementary agricultural schools maintained by the department at various points throughout the island. They will receive for the year 1912-13 a salary of \$60 per calendar month, being the only class of teachers in the employ of and under pay by the government for the entire 12 months of the calendar year.

Fifth. High-school teachers. This class includes the faculties of the high schools of the island. The salaries vary from \$750 to \$1,500 per school year.

The island is at present divided for purposes of school administration into 41 districts divided into three classes: First, municipalities having more than 100 schools:

second, municipalities having between 50 and 99 schools; third, municipalities or groups of municipalities containing less than 50 schools.

There are at present of the first class, 2; of the second, 3; and of the third, 36. The school law provides for an automatic increase in the number of districts, since no district of the third class may contain more than 50 schools. The immediate representative of the commissioner of education in each of the school districts is the supervising principal. In districts of the first class this officer receives a salary of \$1,600, with an allowance of \$240 for house and office rent, and in those of the second, \$1,400, with the same allowance. In districts of the third class the salary is \$1,200, with the same allowance of or rent and an extra allowance of \$200 for traveling expenses in districts of more than one municipality. Although with no vote in the school-board meetings, the supervising principal must, by law, be cited to all of them. In addition, he performs any duties assigned to him by the commissioner and is required by law to present an annual report covering the work of his district. He has an office adequately equipped with furniture and appliances in keeping with the dignity and importance of the position which he holds and maintains definite office hours. The greater part of his time is, however, spent in visiting the schools of his district, and toward the teachers he maintains the position of helper and adviser rather than that of mere critic and spy. At the end of each school month he makes a report to the office of the commissioner on each of the visits during the month.

#### HIGH SCHOOLS.

The high schools of the island with four-year courses are located in San Juan, Ponce, Mayaguez, and Arecibo. In each of them is to be found a fully equipped commercial department having a two-year course in addition to the regular course of four years. The high schools are affiliated by the certificate system with the best universities of the States and certificate their graduates to these institutions without examination.

We have graduates pursuing courses in Cornell, Syracuse, Stevens Institute, University of Pennsylvania, Pennsylvania State, Wellesley, Woman's College of Baltimore, Swarthmore, Wilson, and the University of Louisiana.

The requirements for graduation from the high schools are uniform, as is the course of study. To graduate from the four-year course a student must have attained 16 units of credit, a unit being the credit for the completion of a year's work in a subject with five recitations per week. In the case of subjects with laboratory or shop work, two or three hours' work is considered the equivalent of a recitation hour.

Of the 16 units required for graduation, 4 must be in the English language, 2 in either Spanish, Latin, or French, 2 in history, and 1 in science. The remaining 7 units may be chosen, under the direction of the principal, from the various elective subjects offered.

The course of study offers a sufficiently broad range for those preparing for college or seeking a foundation for business life.

Considerable freedom is permitted within prescribed lines.

The course of study is as follows:

Subject.	First year.	Second year.	Third year.	Fourth year.
English.....	Composition and rhetoric, classics.	Composition and rhetoric, classics.	English literature, composition, classics.	American literature, composition, classics.
Modern languages	Spanish, rhetoric, composition, classics.	Spanish, rhetoric, composition, classics.	Spanish composition, classics; French grammar.	Spanish literature, composition, classics; French composition, classics.
Latin.....	Beginner's Latin, book graduation.	Cæsar and prose....	Cicero and prose....	Virgil and prosody.
History.....	Ancient.	Medieval.	English.....	American and civics.
Mathematics.....	Algebra.	Plane geometry.....	Solid geometry, one-half; algebra, one-half.	Trigonometry, one-half; advanced algebra, one-half.
Science.....	Physiology. Botany.	Botany or zoology...	Physics or chemistry.	Chemistry or physics.
Commercial.....		Bookkeeping.....	Stenography, typewriting, bookkeeping, commercial correspondence.	Stenography, typewriting, commercial law, and arithmetic.
Manual Training.	Boys' and girls' manual training.	Wing and military, mechanical and hand draw-	Cooking.....	Home economics and sanitation.

The requirements for entrance to the commercial courses are the same as for the others, but the time required is but two years, at the end of which a certificate is granted. The courses include all the subjects necessary to preparation for the work of a stenographer, typewriter, and bookkeeper. The commercial certificate is granted to those completing the following:

*First year.*

English for ninth grade.  
Spanish for ninth grade.  
Bookkeeping.  
Stenography.  
Typewriting.

*Second year.*

English for tenth grade.  
Spanish for tenth grade.  
Commercial law and business arithmetic.  
Bookkeeping, typewriting.  
Stenography.

The high school at Arecibo is located in a building which has been remodeled for high-school purposes and is the only high school in Porto Rico adequately housed. The excellent work that has been done in all high schools has been accomplished in spite of the existing inadequate accommodations. This is the first year that a high school has been established in Arecibo and a class of five was graduated on June 21, 1912, from the four-year course. The total enrollment for the year was 70.

The Mayaguez high school is situated in the Roosevelt Building, formerly a military hospital. The teaching force consists of 7 and the total enrollment was 175. It had a graduating class of 9 from the four-year course and 9 others completed the commercial course. Arrangements are now under way to take up the land secured for an athletic field and the prospect for increased activity in this line is good. The high school has a literary society in flourishing condition.

The Ponce High School, with 360 students, is the largest on the island. In addition to the regular course of four years and the commercial course of two years, normal work has been offered for the past three years which, by an arrangement with the University of Porto Rico, entitles the graduates to the graded license to teach in the public schools of the island. During the present year 40 students were enrolled in this course. The Ponce High School is well known for its strong school spirit, and in addition to the purely school work, literary, and social societies, a society for the protection of birds, and a liga progresista are maintained, and for several years the Ponce athletes have carried off the honors both in track and field events and in baseball. The school is situated in the building originally built for an industrial school, which is entirely too small for its present purpose and its future efficiency will be greatly hampered unless adequate facilities are provided.

The Central High School of San Juan is located in what was formerly known as the Las Palmas Hotel, in Santurce. The instructional force numbers 10 and the annual enrollment for the past school year was 301. The interest in the school has shown marked improvement in the last few years. A literary society is maintained and biweekly debates in English and Spanish held. The school ranks second in athletic activities. As is the case with the other high schools, there is an urgent need of a building designed for the purpose. A bill introduced in the last legislature, however, to provide such a building failed of passage.

## CONTINUATION SCHOOLS.

Less than three years ago continuation schools were established under section 2 of the codified school laws in different municipalities of the island.

The object of these schools is to take the pupils upon the completion of their common school course, that is, after obtaining their eighth grade diploma, and carry them two years further, allowing them the privilege of studying among other things manual training, domestic science, and sewing.

Those pupils who desire to continue their school work after graduating from the continuation school are given credit in the high schools of the island for the work covered. During the past year continuation schools have been maintained in Rio Grande, Vieques, Humacao, Caguas, Guayama, Cayey, Aibonito, Coamo, Yauco, San German, Utuado, Manati, Bayamon, and in the practice school at Rio Piedras.

The following courses were offered:

*Ninth grade.*

English, 40 minutes.  
Algebra, 40 minutes.  
Ancient history or Spanish, 40 minutes.  
Manual training or domestic science, 90 minutes.

*Tenth grade.*

English, 40 minutes.  
Plane geometry, 40 minutes.  
Medieval and modern history or Spanish, 40 minutes.  
Manual training or domestic science, 90 minutes.

The continuation schools are equipped with benches and other equipment necessary for manual training for from 12 to 24 boys and domestic science apparatus sufficient for an equal number of girls as well as with all the requisites for classes in sewing and other branches of household economy.

In one of the towns mentioned above where the school board did not have sufficient funds at its disposal for the purchase of manual training and domestic science equipment, \$500 was donated to the school board by a public-spirited citizen to buy the necessary equipment and afford the boys and girls of his home town instruction in these subjects.

The course of study in manual training and domestic science was as follows:

#### SENCE WORK.

(a) Fundamental tool processes: Measuring, squaring, gauging, sewing, boring, chiseling, rules for planing.

(b) Constructions involving groove joints and halving; laying out and cutting joints; use of nails, screws, and glue; carving and finishing.

(c) Making a glue joint; planing joints, gluing, clamping, surfacing, sandpapering.

(d) Construction by means of mortise-and-tenon joint; laying out duplicate parts, cutting mortise, sawing tenon, gluing and clamping, scraping, finishing.

(e) Construction involving the miter joint; planing parallel edges in the construction of a miter box; rebating, laying out and cutting a brace.

(f) Dovetailing; laying out and cutting dovetails, planing corners, inlaying.

(g) Construction involving the use of the panel; plowing, fitting, gluing, clamping, putting on hinges, finishing.

#### COOKING.

I. Food classified and tested for food principles. A study of the effect of heat upon foods alone and in combination; experiments with leavening agents and their uses shown in actual cooking. Bread making. The theory and practice of canning and preserving fruits, vegetables, and meats. Planning, cooking, and serving meals. Waiting on table.

#### PLAIN SEWING.

Every exercise in sewing should illustrate an important principle or process, or a simple combination of such principles and processes. Hand sewing and machine work must be equally insisted upon.

(a) The various stitches and their special uses.

(b) Hand sewing, fundamental processes.

(c) The use and care of sewing machines and their attachments.

(d) The nature and special uses of cotton, linen, and woolen goods.

(e) The use of patterns; cutting out.

(f) Taking measurements; making of simple garments.

The 1,135 who were enrolled in our high and continuation schools on March 1, 1912, as compared with the 796 enrolled on the same date the year previous, were distributed, by age and sex, as follows:

*Distribution, by age and sex, of pupils enrolled in high and continuation schools Mar. 1, 1912.*

Age.	1911				1912			
	Boys.	Girls.	Total.	Per cent at each age.	Boys.	Girls.	Total.	Per cent at each age.
Over 18 years.....	52	57	109	13.7	125	81	206	18.1
18 years.....	72	57	129	20.0	126	105	231	20.6
17 years.....	124	103	227	28.5	139	123	262	24.0
16 years.....	57	84	141	21.5	111	130	241	21.2
15 years.....	56	37	93	11.7	58	59	117	10.3
14 years.....	16	13	29	3.6	25	16	41	3.9
13 years.....	6	1	7	.9	8	3	11	1.0
12 years.....	1		1	.1	3	4	7	.6
11 years.....					1	2	3	.3
Total.....	414	382	796	100.0	599	536	1,135	100.0



## AGRICULTURAL INSTRUCTION.

Following the general plan of last year special teachers of agriculture were assigned to a limited number of towns and were charged with giving theoretical and practical instruction to the pupils of both the graded and rural schools. The budget for the past year made provision for 10 special teachers of agriculture, at a salary of \$60 a month for the calendar year, but owing to a lack of trained men available for this work only 7 appointments were made. These 7 were assigned to the districts of Carolina, Juana Diaz, Bayamon, Utuado, San German, Toa Alta, and Anasco.

They devoted their entire time to the teaching of agriculture to the pupils of both graded and rural schools, holding conferences and classes for teachers, conducting public meetings for the farmers, and in general to arousing and maintaining interest in the agricultural movement throughout their respective school districts. Many of the distant rural schools, accessible only on horseback over long and wearisome trails, could be visited but once a month, though in such cases the teachers in charge looked after the agricultural work, receiving explicit instructions from the special teacher. As a rule, both boys and girls took the course, and emphasis was laid on the practical as well as on the theoretical side of the subject. In the 7 districts where this instruction was given a total of 8,723 pupils are reported as having taken this course, as compared with 1,663 during the year previous. The course has been offered in all grades of both graded and rural schools, but in the lower ones the most mature pupils were selected to do whatever manual work was necessary. In the graded schools the practical work in agriculture has been done on land contiguous to the school building, in most cases it being the property of the local school board. In the rented rural schools land has been donated or loaned by public-spirited people for the agricultural work.

Nature study is a required subject in the first four grades of both rural and graded schools, and in those districts where no special teachers of agriculture were found practical work connected with school gardening was carried on as a part of the nature-study course. In those in which special teachers of agriculture were located the courses in nature study and in elementary agriculture have been very closely correlated. A course in agriculture has been worked out by the different teachers in this subject for their respective districts, and I would recommend that a uniform course be promulgated as soon as possible.

The following table shows the average number of minutes per week given to: theoretical and practical work in the 7 districts mentioned above:

	Theoretical work.	Practical work.		Theoretical work.	Practical work.
	<i>Minutes.</i>	<i>Minutes.</i>		<i>Minutes.</i>	<i>Minutes.</i>
Grade 1.....	38	62	Grade 5.....	60	73
Grade 2.....	38	59	Grade 6.....	60	53
Grade 3.....	56	68	Grade 7.....	63	55
Grade 4.....	57	69	Grade 8.....	68	64

The need of more industrial instruction, especially in agriculture, which is and will remain the fundamental industry of the island, has long been recognized.

During the past school year special efforts have been made to introduce elementary agriculture efficiently into the common schools. A recent ruling of the Commissioner of Education for the United States made it possible to utilize, to a reasonable extent, the Federal appropriations known as the Morrill and Nelson funds for instructing teachers in agriculture and for the teaching of agriculture.

The Commissioner of Education for the United States and the commissioner of education for Porto Rico in consultation at Washington decided that it was highly desirable to hold a series of one-week institutes throughout the island for the purpose of giving instruction in agriculture to the teachers in the rural and graded schools. The plan contemplated closing the schools for one week in a given district, assembling the teachers at a convenient central point, and requiring their attendance at the exercises of the institute. This was put into effect and 35 institutes were held in different sections of the island.

The selection and organization of the institute faculty as well as the planning of the work, subject, content, and equipment was placed in the hands of Dean F. L. Stevens, recently elected to organize the college of agriculture at Mayaguez. The institute faculty selected by Dean Stevens was as follows: R. I. Smith, E. A. Cocke-fair, A. C. Stevens, M. A. Umberger, A. T. T. Griswold, and S. K.

White, all of whom arrived in Porto Rico in January, 1912. Work was begun immediately on the development of the scheme already worked out in its main features by Dean Stevens, and was essentially:

1. Each week's work to consist of 20 exercises, each exercise to present the subject matter with method of instruction for approximately one week's work in Agriculture in the common schools.

2. Several periods to be given to practice classes with the various grades.

3. Evening illustrated lectures and moving picture exhibits on agriculture to be given.

4. During the following year 20 lessons to be presented and the 20 lessons of the first year revised.

5. During the second year a weekly bulletin to be sent to each teacher. This bulletin to present lesson plans for the agricultural lessons of the week following and to aid in stimulating interest in all phases of this work, including school fairs, school collections, etc.

6. During the second year a large personal correspondence with the teachers regarding the teaching of agriculture to be conducted by the college faculty.

7. A prize in the form of a one week scholarship at the college of agriculture in a special course, all expenses paid, to be awarded to the pupils in each school district doing the best work in agriculture.

The faculty immediately began to get together the equipment, charts, microscopes, specimens, lantern slides, etc., and to prepare the syllabi of the lessons to distribute to the teachers.

In the selection of subject matter special stress was laid upon fundamental knowledge teachability and applicability of the knowledge in Porto Rico. It was, of course, impossible properly to develop and use school gardens in the work of the first year, but their utility was constantly emphasized and advantage was taken of the many excellent school gardens that already existed in the island.

The paucity of birds in Porto Rico and their evident need here, lead also to special emphasis on the relation of birds to agriculture.

A somewhat full exposition of the work comprehended in the 20 lessons of each institute is given below:

#### *Lesson I.*

*Subject.*—Seed testing.

*Object.*—To show the importance of testing seeds; to give practical methods of seed testing.

*Subject matter.*—Seeds contain young plants, more or less food, and have a protective covering. The larger, more vital, better protected seeds grow best.

Seeds have parents and grow to be like them; good parent plants produce good seeds and vice versa.

It is economy to select among seeds and also among parent plants. The one for vigor, the other for inheritable qualities.

Economic methods recommended are: The use of the plate tester, the Geneva tester, the block test, the centgener, or breeding plat test.

*School lesson plan.*—Each pupil is to examine a seed under the teacher's direction to determine its vital parts. Use bean and corn seeds soaked for twelve hours previous to recitation.

*Out-of-class work.*—Plant these seeds in a window box—old seeds side by side with fresh seeds, small seeds side by side with large ones. Some seeds may be chosen for uniformity of size and for vigor; when these are up determine the value of the stored food by removing parts of their cotyledons or endosperm, one-quarter from one, one-half from another, three-quarters, four-quarters, etc., as may be necessary to teach the fact, comparing growth from day to day. This lesson and later observations should be made subject matter for a "plant booklet" to be made by the pupils.

Have children collect at home seeds from parent plants of greatest productivity and quality of fruit. These seeds are to be brought to school and tested, and the best planted in the school garden.

*Literature.*—The Nursery Book, L. H. Bailey, published by Macmillan Co.; Farmer's Bulletin Nos. 408, 218, 253.

*Lesson outlines.*—(a) Subject: Seed selection. Object: To teach the value of inheritance in crop production and methods of making practical use of inheritance. Subject matter: 1, how mankind has profited by the work of a few people in plant breeding; 2, what constitutes a pure breed in plants; 3, breeding methods.

(b) Subject: Seeds and seedlings. Object: To give pupils more definite knowledge of the nature of seeds. Subject matter: Details of seed structure and of seed types.

*Lesson II.*

*Subject.*—Root hairs and osmosis.

*Object.*—To teach of root hairs as vital organs of the plant, of their function and of osmosis in its relation to absorption of plant food.

*Subject matter.*—The root hairs are located behind the tips of the very small roots. They number about 230 per square millimeter and are from 2 to 5 millimeters in length, consisting of but one cell.

If a permeable membrane separates two liquids, one of which is more dense than the other, the liquids will diffuse through the membrane. This phenomenon is known as osmosis.

By osmosis root hairs absorb the moisture from the soil. This is made possible by the concentration of the cell-sap within the root hair. The walls of the root hairs are lined with living membranes, and the function of root hairs is to absorb soil water and plant food in solution.

When a large root is cut off, many small roots are produced in its place, giving more area for root-hair growth, and increasing the amount of plant-food absorption.

When plants are transplanted, many small roots with root hairs are destroyed, causing wilting from lack of water absorption.

*School lesson plan.*—1. Germinate seeds under glass, half submerged in moist saw-dust four days previous to lesson. 2. Show osmosis with raisins, sweet potatoes, etc.; show wilting due to osmosis in a plant transplanted in sand and treated with strong salt water. 3. Examine seedling roots to note position of root hairs, their numbers, and form; draw and describe. 4. Explain the function of root hairs. 5. Show practical application of lesson to root pruning, transplanting, manuring, use of fertilizers.

*Literature.*—Nursery Book, Chapter I, Bailey; Elements of Agriculture, Chapter IV, Warren; Lesson Manual, Gray; Farmers' Bulletin, United States Department of Agriculture No. 181, Pruning; Farmers' Bulletin, No. 408, School Exercises in Plant Production.

*Lesson outlines.*—(a) Subject: Leaf functions. Object: To teach the use of sunlight in food manufacture. Subject matter: Leaves with no leaf green can not make plant food, i. e., starch or sugar. The energy from the sunlight is used in the leaf green to make carbohydrates. Leaves use the water and elements from the soil and the oxygen and carbon dioxide from the air in making starchy or sugary foods.

(b) Subject: Stem structure. Object: To teach of the structure of plant stems, sap wood, heart wood, bark and cambium, and the healing of wounds. Subject matter: In the great class of dicotyledenous plants, such as coffee, orange, mango, etc., the stem consists of heart wood, sap wood, and bark. In the monocots, such as palms, bamboo, sugar-cane, etc., the bundles are scattered. Wounds in trees with true bark are able to heal by the growth of new bark.

*Lesson III.*

*Subject.*—The flower.

*Object.*—To teach the function of the flower in plant economy; the use of its parts and the bearing of this knowledge on practical agriculture.

*Subject matter.*—The purpose of the flower is to produce seed. The parts of the flower are corolla; calyx; stamens; pistil. The pistils and stamens only are essentially involved in reproduction. Flowers are perfect or imperfect as regards the presence of both pistils and stamens. Flowers are complete or incomplete as to presence of all the parts.

*School lesson plan.*—Note the position of the flower on the plant. Note color of the corolla; its shape; divisions. The divisions of the corolla are called petals. What is the use of the calyx of the flower? Note the divisions. The divisions of the calyx are called sepals. Find the pistil. The pistil is divided into three parts—the stigma or upper part; the style or middle part; and the ovary at the base of the flower. Cut open the ovary; note undeveloped seeds. Make drawings of the pistil; count the stamens; how many parts has the stamen? The upper part is called the anther. The anther contains the pollen. Make drawings of a stamen. Make drawings of each part and label them. Use this material in the "plant booklet."

*Literature.*—Lessons in Botany, Gray.

*Lesson outlines.*—(a) Subject: Pollination. Object: To teach that the chief object of the flower parts is to insure the transfer of pollen from the anther to the pistil. Subject matter: Means of pollination. Insects, wind, birds, hand pollination. Fertilization, as the result of pollination.

(b) Subject: Plant breeding. Object: To teach that man may take advantage of the facts of pollination and fertilization to improve plant varieties and their efficiency. Subject matter: Crossing, hybridizing. Objects, methods, results.

*Lesson IV.*

*Subject.*—Budding and grafting.

*Object.*—To teach the chief methods of propagation without seeds, and that we can thus reproduce plants like the parents and in a much shorter time than is possible with seeds.

*Subject matter.*—Only plants with a cambium layer can be grafted. Oranges, lemons, mangoes, coffee, etc., are examples.

The cambium layer is located just under the bark. It is the essential part in grafting. Sugar-cane, bamboo, palms, etc., have no cambium layer.

The cambium layers of two closely related plants will grow together if the bark is cut away and the two cambium layers come in contact.

An example of the practical bearing of this is that sweet oranges can be grown on sour orange trees.

Exhibit and plan in arching, bark grafting, cleft grafting, whip grafting. Grafting wax with formula.

*School lesson plan.*—1. Have the students examine twigs of orange trees to find cambium layer. 2. Teach of the sap currents in the stem, and of the practical application of grafting as concerns oranges. 3. Exercise.—Give each pupil a knife and branch of material and have him make a bud graft; describe with drawings in the "plant booklet."

*Literature.*—Nursery Book, Chapter V, Bailey; Fruit Growing in Arid Regions, Bailey; American Horticultural Manual, volume 1, Bud & Hanson.

*Lesson outlines.*—(a) Subject: Propagation by cuttings and layering. Object: To teach of a way of propagation of plants without the use of seeds. Subject matter: The nodes and stems are able to send out roots and leaves. Sugar-cane, grapes, sweet potato, etc., afford examples.

(b) Subject: Propagation by bulbs and tubers. Object: To teach of a way of propagation of plants without the use of seeds. Subject matter: The bulbs and tubers of certain plants contain plant food and the power of reproducing new plants like the parent.

*Examples.*—Onions, yams, potatoes, bananas, etc.

*Lesson V.*

*Subject.*—The school garden.

*Object.*—To furnish an out-of-door laboratory for school use. To demonstrate the economic and decorative values of plants.

*Subject matter.*—The way to adapt a school-ground landscape plan to fit its environment. The way to adapt a garden plan to the possibilities and needs of the children's own school.

*School lesson plan.*—By blackboard drawing show pupil how to map a school ground and plan its improvement according to correct principles. Have pupils plan and select, with the teacher's guidance, their own plan for improving their own school ground. The plan to be executed during the school year.

In the above directions, locate the school garden for two purposes; to grow home products of economic or decorative value and unknown or little known crops in correlation with other studies, particularly geography.

Finally plans and drawings made by the pupils for their own school and descriptions of the same are to be made a part of the "plant booklet."

*Literature.*—Farmers' Bulletins: No. 158, The Propagation of Plants; No. 213, The School Garden; No. 218, School Gardens; No. 255, The Home Vegetable Garden; No. 408, School Exercises in Plant Production; No. 385, Boys' and Girls' Agricultural Clubs. United States Bureau of Education, Bulletin No. 2, Nature Study and School Gardens; How to Make a School Garden, Ridgeway; How to Make School Gardens, Hemenway; Children's Gardens, Miller.

*Lesson outlines.*—(a) Subject: The home garden. Object: To furnish more cheap and wholesome food and a larger variety, and to grow products for sale. Subject matter: Nearly every known vegetable can be grown somewhere in Porto Rico. Gardens should be so planted that the larger and coarser plants protect the more delicate ones from winds and floodings. Plant so that the more tender species get a good start before the time of heavy rains. A dust mulch is a better means of watering than the sprinkler. Plants that bring the largest net profit or that furnish the greatest amount of nutriment should be preferred. Children should be taught to keep records of costs, yields, profits, etc.

(b) Subject: Weeds. Object: To enable children to identify and to combat, in the easiest way, the more injurious weeds. Subject matter: Weeds use soil moisture and nutriment and often shade the more tender garden vegetables from sunlight which they need. Children should be taught to identify 5 or 10 of the more injurious weeds and to learn the best methods to combat them.

*Lesson VI.*

*Subject.*—Spraying mixtures.

*Object.*—To aid in control of plant disease and insects injurious to crops.

*Subject matter.*—We spray to protect our crops against two enemies, insects and fungi. Insects are divided into two classes, biting and sucking. Each requires different treatment.

Lime-sulphur washes, 8:8:50, hinder the growth of plant disease and act as a contact poison for young scale insects.

Bordeaux mixture, 5:5:50, is used against fungous diseases.

Arsenate poison is used against biting insects.

Kerosene emulsion, 5 to 10 per cent, is used, against sucking insects.

*School lesson plan.*—Introductory questions: How does man fight his insect enemies? His fungous pests?

*Exercise:* Make and exhibit one spray mixture. Explain the making of whale-oil soap, Bordeaux mixture, arsenate spray, and that there are two great classes of insects—sucking and biting.

Explain the use of whale-oil soap or kerosene emulsion and lime sulphur for sucking insects, and of arsenate poisons for biting insects, such as caterpillars, beetles, ants, chagas, etc. A description of the method of making, and the formula, should be written by the children and put into the "plant" or the "insect booklet."

*Literature.*—Iowa Experiment Station Bulletin No. 89; Nursery Book, Bailey; Fruit Growing in Arid Regions, Chapter XX, Bailey.

*Lesson outlines.*—(a) *Subject:* Plant disease. *Object:* To study the nature of disease, production, diagnosis, and treatment, and also important local diseases. *Subject matter:* Study the chart and observe a microscopic view of the diseased tissues. Note spores. Examine blue mold on oranges; note nature of coffee blight; cane root rot and citrus root rot. Spraying as a preventative.

(b) *Subject:* Spraying machinery. *Object:* To teach of the principles of spraying machines and their operation. *Subject matter:* The mechanics of a properly constructed pump; the principles of spraying nozzles and their action; the construction of spray-mixing apparatus.

*Lesson VII.*

*Subject.*—The structure and texture of soils.

*Object.*—To give knowledge of the physical characteristics of soils.

*Subject matter.*—The physical ingredients of soils are: Sand particles varying in size from 1 to 0.05 mm. in diameter; silt particles from 0.05 to 0.005 mm. in diameter; clay particles from 0.005 to infinity in diameter; and humus, which is composed of the residue of plant and animal decay. Size of soil particles is referred to as texture.

The characteristics of these ingredients are as follows:

Silt: Medium air space; medium friability; medium water-holding capacity; medium percolation; medium fertility.

Sand: Large air spaces; friability; small water-holding capacity; quick percolation; small fertility.

Clay: Great air space; lacks friability; large water capacity; slow percolation; high fertility retention.

Humus: Great air space; friability; great water-holding capacity; quick percolation; retains no fertility, but is a fertility liberator.

The proper combination of these constituents has much to do with soil productiveness. The looseness or compactness of soil is referred to as structure.

*School lesson plan.*—Children are asked to bring to school samples of sand, silt, clay, and humus. One quart of each should be powdered as finely as possible and kept as a stock supply. With a sample of each before him, the pupil is to describe the qualities of each material as to size of particles, color, water capacity, stickiness when wet, crumbling when dry, etc.

What combination of these materials would make the best seedbed? How could soil be changed to advantage?

Have children use this material in the making of a "soil booklet." Out-of-door work. Put some ordinary soil in a large jar or bottle with four or five times as much water. Shake vigorously. Allow it to settle and note the separation of parts.

Put a spoonful of clay in each of two glasses, mixing some lime with one. Fill the glasses with water and stir thoroughly. Note which settles first.

Make a paste of clay in each of two pans, using lime with one. Set aside to dry in the sun. Note the difference in friability.

All experiments, observations, and exercises should be recorded in the "soil booklet."

*Literature.*—Physics of the Soil, Chapters I-XII, King; The Soil, King; The Fertility of the Land, Roberts.

*Lesson outlines.*—(a) Subject: Origin of Soils. Object: To bring pupils into a conception of the great and constant forces whereby soil is formed and maintained. Subject matter: Weathering forces.

(b) Subject: Soil moisture. Object: To teach the nature and value of soil water. Subject matter: The three forms of soil water. Movement of soil water. The amount required by crops. The conservation of soil water.

### Lesson VIII.

*Subject.*—Soil fertilizers.

*Object.*—To give an elementary knowledge of the elements necessary to plant life and of the compounds in which they become available to plants. To teach of the sources of these compounds.

*Subject matter.*—The 10 necessary elements and others useful may be listed as follows:

#### Plant food elements.

Necessary:

Carbon (C).  
Oxygen (O).  
Hydrogen (H).  
(x) Nitrogen (N).  
Sulphur (S).  
(x) Phosphorus (P).  
(x) Potassium (K).  
Calcium (Ca).  
Magnesium (Mg).  
Iron (Fe).

Not necessary, but useful:

Sodium (Na).  
Silicon (Si).  
Chlorine (Cl).

#### Plant food materials.

Starch, sugar, cellulose:

C as carbon-dioxide ( $\text{CO}_2$ ).  
O for the air.

Oils:

H as water from the soil ( $\text{H}_2\text{O}$ ).

Protein:

N as nitrates ( $\text{NO}_3$ ) or as ammonium salts; ( $\text{NH}_4$ ) from the soil.

Minerals and ash useful in the physiology of plants:

S as sulphates ( $-\text{SO}_4$ ).  
P as phosphates ( $-\text{PO}_4$ ).  
K as potash salts ( $\text{K}-$ ).  
Ca as calcium salts ( $\text{Ca}-$ ).  
Mg as magnesium salts ( $\text{Mg}-$ ).

Fe as iron salts ( $\text{Fe}-$ ).

As mineral salts:

Na.  
Si.  
Cl.

The (x) elements are of chief agricultural interest often present in insufficient quantity in the soil. The others are present in abundance in nearly all soils.

*School-lesson plan.*—In teaching this lesson to children under the seventh grade, only a few of the most fundamental facts can be used. Speak of carbon dioxide as a waste product of animal bodies and of combustion, and decay. Speak of leaves and green parts of plants capturing this gas out of which they make sugar and starch and woody tissue. Speak of nitrogen as a gas of the air that must be caught in the soil and combined with other elements before plants can use it; and of phosphorus, the substances from which matches are made, and potassium, the active element of lye, as necessary elements in the physiology of plants. Have a composition written by the pupils on this subject for the "Soil Booklet."

*Lesson outlines.*—(a) Subject: Increasing fertility. Object: To teach methods of increasing soil fertility by proper management and utilization of farm waste. Subject matter: Losses through the crops. Gain through crops by plant decay, green manures, and legumes. Farm manures.

(b) Subject: Increasing fertility artificially. Object: To teach use of commercial fertilizers. Subject matter: Composition of commercial fertilizers. Calculation of quantities needed, and home mixing.

### Lesson IX.

*Subject.*—Field management.

*Object.*—To teach the correct principles and practices of field management. To give the pupil the ability to plan field operations wisely.

*Subject matter.*—Principles of preparing a seed bed:

Plow deeply to increase water-holding capacity, enlarge root area, make plant food available and aerate soil.

Pulverize thoroughly to break clods, pack soil, conserve moisture, mix plant residue with soil.

**Principles of proper cultivation:**

Cultivate frequently to kill weeds, conserve soil moisture by dust mulch, make plant food available, aerate soil.

**The economy of power and the efficiency of machinery:**

Horse, ox, or engine power is cheaper than man power. Soil is worked more thoroughly and better by machinery than by hand.

*School-lesson plan.*—Discuss briefly the principles outlined in "Subject matter" mentioned above.

Fill two lamp chimneys half full of good fine dry soil. In one chimney place a layer of chopped dry grass, 1 inch thick, in the other a layer of dry clods, 1 inch thick. Fill both chimneys with dry soil. Fill a third chimney with fine dry soil. Place the chimneys in a pan of water. Observe from day to day, and have pupils explain results.

Have children draw diagrams of plants grown in shallow seed bed and deep seed bed, and explain the difference.

*Out-of-class work.*—To illustrate the effect of a dust mulch: Fill two glass tumblers with equally moist earth. Add enough water to each to make soil wet. When the soil is sufficiently dry, thoroughly pulverize the surface in one pot to the depth of 1 inch. Continue to stir this surface soil from day to day. Explain results.

Experiment showing the effect of the exclusion of air from the soil: Have two young plants growing in separate cans of soil. Make holes in the bottom of one for drainage. Let the other be water tight. Keep the latter thoroughly saturated, and add enough water to the first to keep the plant growing vigorously. Explain how the water excludes the air.

Problem to show the economy of using animal power on the farm: The work of six men equals that of one ox. If the wages of one man is 60 cents per day, and the wages of two men and four oxen \$3 per day, and the four oxen and two men can plow 1 acre per day, how many men will it take to plow (or spade), an acre in one day, and how much will it cost?

Description and experiments should be included in the "Soil Booklet."

*Literature.*—Soil Fertility and Permanent Agriculture, Hopkins; The Soil, King; Physics of Agriculture, F. H. King. Farmers' Bulletins No. 28, Weeds, and How to Kill Them; No. 266, Management of Soils to Conserve Moisture; No. 414, Corn Cultivation; No. 406, Soil Conservation; No. 421, Control of Blowing Soils.

*Lesson outlines.*—(a) Subject: Legumes. Object: To teach the value of legumes as nitrogen gatherers. To show their value as animal feeds. Subject matter: All legumes may have root tubercles, which indicate the accumulation and storage of nitrogen. By them nitrogen fertility of the soil is increased by about one-half of the nitrogen content of the crop. Legumes are relished by and are very beneficial to farm animals.

(b) Subject: Rotation. Object: To show how to gain greater efficiency in crop production. Subject matter: Soil fertility is conserved. Greater economy in field operations is attained. A variety of feeds is produced on the farm. Diseases and pests are avoided.

**Lesson X.**

*Subject.*—Insect life.

*Object.*—To teach useful facts concerning insect structure, habits, life histories, and methods of combating insects.

*Subject matter.*—Insects are connected with all phases of life. Farmers, fruit growers, gardeners, florists, merchants, housekeepers, and every individual must fight insects.

Insects spread disease.

Life histories, general habits, and mode of feeding must be known in order to fight insects successfully.

Insects outnumber all other animals.

True insects are easily distinguished from their near relatives.

Spiders, mites, ticks, scorpions, and centipedes are not insects.

Place of insects in the animal kingdom.

The variety of insect forms.

Remedies are based on a knowledge of insect life.

*School lesson plan.*—A study of some common, large insect.

Large beetles, grasshoppers, roaches, or ants may be used for the class. Provide enough to give each child a specimen. Have a few live insects. A few spiders should be provided for comparison. Let each child make a note of the following:

Names of insects, date, locality, etc.

Number of appendages on the body.

Legs, wings, feelers on the head, mouth parts.

**Thorax:** Notice attachment of the legs. Explain that thorax corresponds to the trunk of other forms of animals and of man. Notice that the wings are on the thorax.

**Head:** Look for eyes, mouth parts, and feelers. Explain that the feelers are organs of touch and smell and sometimes of hearing. See if the eyes are large and how placed. See how the mouth parts are formed, whether for chewing or sucking.

**Abdomen:** The part of the body behind the legs and wings. Explain that a true adult insect never has legs or wings on the abdomen. For additional work, if advisable, the children can make drawings of the entire insects, and of the most prominent parts separately. Drawings and descriptions of insects may be put in an "insect booklet."

*Literature.*—Insect Book, J. H. Comstock; Insects and Insecticides, Weed. Send for list of bulletins of the Bureau of Entomology, United States Department of Agriculture, Washington, D. C. Most of these will be sent free to teachers.

*Lesson outlines.*—(a) Subject: Chewing and sucking insects. Object: To study the structure of these insects and modes of combating them. Subject matter: Chewing insects have jaws that open sideways. Sucking insects have beaks. Beaks of moths and butterflies are coiled under the head. Beaks of true sucking bugs are usually found pointing backward between the front legs. Wasps and bees have combination mouth parts. The plant-feeding insects can be killed by internal or by contact poisons.

(b) Subject: Insects injurious to plants. Object: To increase interest in insects and knowledge concerning their control. Subject matter: Study white fly on under side of guava and orange leaves. Beetles that eat weeds or garden plants. Scale insects on citrus fruits. Any other insects that feed on plants. Have pupils find insects and bring in specimens of both insects and the injured plants.

### Lesson XI.

*Subject.*—Flies and mosquitoes.

*Object.*—To teach the habits of flies and mosquitoes. Their importance in animal economy, and their relation to man as disease carriers and to indicate methods of control.

*Subject matter.*—Flies carry filth and germs to milk, and this polluted milk causes serious diseases of man. Typhoid and tropical dysentery have often been carried in this way. The yield of milk is lessened by animals being constantly annoyed by mosquitoes and flies. The control of flies and mosquitoes can be effected through a knowledge of their life history, habits, and breeding places. Over 90 per cent of the flies breed around stables. Stagnant water affords a breeding place for mosquitoes.

*School lesson plan.*—Flies: Note the structure of the fly's body with reference to possibilities as a germ and filth distributor. Trace the life history of the fly. Eggs, larva, pupa, adult. Egg masses number from 120 to 200 each. The time of the life cycle varies from 10 days to 3 weeks. Note breeding places for flies and means of control. Speak of flies as serious animal pests, reducing the vitality and efficiency of the animal. Spraying and elimination of breeding places offer means of control.

Mosquitoes: Study mosquitoes in various places and trace life history. Mosquitoes feed upon juices of plants and blood of animals. Note body structure of malarial type.

A descriptive chapter on "Flies and mosquitoes" may be made after these lessons for the "insect booklet."

*Literature.*—Farmers' Bulletins: No. 255, Protection of Cows from Flies; No. 133, Direction for Making Fly Traps; No. 155, How Insects Affect the Health in Rural Districts.

*Lesson outlines.*—(a) Subject: Other insect pests. Object: To enable pupils to recognize insect enemies and methods of eradication. Subject matter: Study insects near schoolhouse to determine what forms occur and to become acquainted with habits and life history of these forms. Notice feeding habits. Notice difference between young and adults.

(b) Subject: Beneficial insects. Object: To enable pupils to recognize insect friends and to know their value. Subject matter: Honey bees: Explain how bees visit flowers and spread the pollen and how all bees, large and small, perform the same task. Explain that the bees get honey and pollen to feed their young and that nature has formed the flowers, in many instances, so that bees can not enter without spreading pollen to fertilize the flower.

Lady beetles: Collect a few lady beetles from plants infested with plant lice. Try to get living beetles and let the children see how they eat the lice. Young lady beetles (soft body forms) can often be found.

Parasites on caterpillars: These may be found in nearly every garden or field.

Predaceous beetles: Common black ground beetles feed on all little insects.



*Lesson XII.*

*Subject.*—Animal feeds and feeding.

*Object.*—To teach the principles of animal nutrition and the practice of economical animal feeding. *Subject matter:* Composition of feeds: Dry matter is composed of protein—muscle builders; carbohydrates—heat, energy, and fat producers; fats or oils—heat, energy, and fat producers; mineral matter—bone former.

Feeds for special purposes: Mature animals at rest require the smallest proportion of protein. Growing animals require the largest proportion of protein. Different kinds of animals, doing different kinds of work, require different kinds of feeds.

What constitutes a ration: Feed consumed by a 1,000-pound animal, or a number of animals, weighing 1,000 pounds in one day.

Balancing a ration.—Nutritive ratio: Ratio between amount of protein and amount of carbohydrates plus the amount of fat multiplied by 2½. A balanced ration is one which combines the various feed nutrients in the proper amounts and proportions for some definite purpose. The feed nutrients are protein, carbohydrates, and fats. To balance a ration, multiply the amount of fat by 2½, add to the amount of carbohydrates, and divide by the amount of protein.

*School lesson plan.*—What are the feed nutrients? What function does each perform in animal nutrition? What kind of animals require the largest amount of protein? What kind require the smallest? What is meant by nutritive ratio? How is it obtained?

Find the nutritive ratio of the following ration: 25 pounds malojilla grass; 2 pounds cottonseed meal; 4 pounds corn. The principles taught in this lesson should be made subject matter for an "animal booklet."

*Literature:* Feeds and Feeding, Henry; The Feeding of Farm Animals, Jordan. Farmers' bulletins: No. 22, The Feeding of Farm Animals; No. 142, Nutrition and Nutritive Value of Food; No. 170, Principles of Horse Feeding; No. 411, Feeding Hogs in the South.

*Lesson outlines.*—(a) *Subject:* Breeds of Farm Animals. *Object:* To familiarize the pupil with the useful breeds of farm animals. *Subject matter:* Breeds of dairy cattle, horses, swine, and beef cattle.

(b) *Subject:* Stock Judging. *Object:* To train the pupil to be able to choose between a good and a poor animal. *Subject matter:* There are marked differences between animals of the same breed and class. Animals can be improved by proper selection. Certain uses demand certain types.

*Lesson XIII.*

*Subject:* Poultry.

*Object:* To teach how to raise and to produce more and better poultry and poultry products.

*Subject matter:* The three classes of chickens are: Asiatic, meat producers, large; Mediterranean, egg layers, small; American, combination type, medium in size.

Reasons for improving present type: Present average production is 60 eggs per hen. This can be doubled by using better fowls. The chickens now raised are too small and lay small eggs.

How to improve: By selection and management in feeding and care.

How to judge a hen: A hen should be good size for her breed, strong, active, healthy, and generally well made.

Marketing eggs: Eggs should be graded for uniformity in size, color, shape, and cleanliness.

*School lesson plan:* Name different parts of a hen. Score, using a simple score card. Make an exhibit of poorly graded eggs.

Let written work on this lesson be made a part of the "Animal Booklet" or of a "poultry booklet."

*Literature:* Progressive Poultry Culture, Brigham; Farmers' bulletins: No. 51, Standard Varieties of Chickens; No. 236, Incubation and Incubators; No. 287, Poultry Management; No. 337, Methods of Poultry Management at the Maine Agricultural Experiment Station.

*Lesson outline.*—(a) *Subject:* Poultry parasites and diseases. *Object:* To teach the pupil how to recognize and treat the most common diseases and parasites of poultry. *Subject matter:* Sore head, or chicken pox; colds, catarrh, etc.; lice, mites; medicines and disinfectants; prevention.

*Lesson XIV.*

*Subject.*—Birds in relation to agriculture.

*Object.*—To increase the number of birds in Porto Rico and to decrease the number of destructive insects.

*Subject matter.*—Birds are needed by man in his warfare against insects.

Porto Rico should have not less than two birds to the acre.

Two birds to an acre in Porto Rico would give us  $2 \times 2,307,640$ , or 4,615,280 birds. If each bird eats 25 insects and insect eggs per day, a very low estimate, the 4,615,280 birds would eat 115,382,000 insects each day. That would make about 962 bushels. Birds are variously classified, but for agricultural purposes are conveniently classified into hard-billed and soft-billed birds.

The hard-billed birds eat insects, fruit, and seeds, and the soft-billed live almost entirely on insects.

Porto Rico has a number of very valuable birds, among them the Jewess, the Mozambique, the Hero, or so-called "Changa," the humming birds, Queens, etc. The Bee Martin is a bird which perhaps does more damage than good.

Domestic fowls, lizards, snakes, toads, frogs, bats, and certain fungi are also insect destroyers.

*School lesson plan:* Ask pupils to write the names of all the birds they know. Which did they see on the way to school? What have they seen birds eat? Give instructions for starting a bird chart and a bird booklet. Tell the pupils where they can get facts to make the work on a "bird booklet" interesting. Correlate the bird lesson with some of the reading lessons.

*Literature*—Farmers' Bulletin No. 54; Birds in Relation to Agriculture, Weed & Dearborn; Bird Studies with a Camera, Chapman; Bird Life, Chapman; bulletin of Porto Rico Experiment Station "Changa" under heading "Natural Enemies."

*Lesson outline.*—(a) Subject: Birds, houses, and homes. Object: To enable the children to encourage and protect birds. Subject matter: Porto Rico needs more birds.

Birds in Porto Rico have been killed by storms, which we can not control; by animals, such as the mongooses, and by people who kill them wantonly and for food.

We can increase the number by: Building houses, cooperating with Porto Rican bird leagues and societies, and by teaching the value of birds and how to care for them.

#### Lesson XV.

*Subject.*—Carbohydrates: Starch.

*Object.*—To teach valuable facts concerning one of the most common constituents of foods of man and domestic animals; its importance and function in animal diet; to indicate methods of preparation as affecting digestibility.

*Subject matter.*—Starch is classed as one of the carbohydrates. These supply the body with heat and power to do work. It is the most important of the carbohydrate group from the standpoint of food, and is found only in the vegetable kingdom, stored in different parts of the plant in the form of tiny grains. These grains are held together in bundles by a substance called cellulose. Starch is manufactured by plants through the action of sunlight upon the green coloring matter of the leaves.

*School lesson plan.*—The starches are found in grains, fruits, and vegetables, for example: Rice, wheat, bananas, potato, parsnip, and sago.

Examine starch granules of rice and flour with reference to the following physical characteristics: Appearance, feeling, taste, color.

Note further characteristics by means of the following tests:

Treat it with iodine solution. What is the effect?

Add starch to a small amount of water. Does it dissolve?

Heat dry starch granules to a deep golden brown. The resulting substance is dextrin. Add dextrinized starch to water. What happens?

Heat dry starch until only a hard, dry, black substance remains. What is this substance? Will it dissolve in water?

From the last test it may be seen that starch contains carbon.

By the use of Langworthy charts, note the starch content of some of the more common food materials of man and animals.

In the human diet note the importance of cooking the starch in order to rupture the cellulose wall. Special emphasis should be placed on thorough cooking of starch for children and invalids.

The principles of this lesson may be incorporated by the children in the "animal booklet."

*Literature.*—Handbook of Domestic Science and Household Arts, Wilson; Farmers' Bulletins: No. 295, Potatoes and Other Root Crops as Food; No. 298, Food Value of Corn and Corn Products; No. 375, Care of Food in the House.

*Lesson outlines.*—(a) Subject: Sugar. Object: To give useful information about sugar as food and in feeding. Subject matter: Sources, cane, beet, fruit, and milk sugars. Tests of physical characters. Uses in the human diet and animal feeds.

(b) Subject: Fats. Object: To give useful facts and to aid in forming proper rations. Subject matter: Trace animal and vegetable origin of fats. Uses in animal and human

body. Action of heat upon fats. Compare boiling points of water with the cooking temperature of fats.

#### Lesson XVI.

*Subject.*—Protein foods and feeding.

*Object.*—To teach the value of protein to the animal body, its sources and function in food and feeding and the production and care of the more important protein feeds.

*Subject matter.*—Summarize food classes: Carbohydrates; protein; fats; mineral matter; water.

Protein foods are of special use to the animal body because they build up new tissue and replace old ones; hence they are called the tissue builders.

Protein foods are also called nitrogenous foods because they contain nitrogen. One of the most common of proteins is albumen, of which we have a good example in the white of eggs. Some foods especially rich in protein are: Eggs, milk, and cheese; meats, beans, and peas; many cereals. For animals: Alfalfa, hay, oats.

*School lesson plan.*—Study an egg, observing size. Draw an egg, naming parts. Separate white and yolk of egg. Place a little white or a little yolk of egg in cold water. Does it dissolve?

Cook one egg in boiling water; one in water below boiling point; note difference in texture of resulting products. Which is the more soluble? Draw conclusions as to action of excessive heat upon albumen. Draw conclusions as to its digestibility.

Study composition of principal protein containing foods by charts; eggs; milk and cheese; meat; cereals; beans and peas.

Emphasize the value of peas and beans as a food for animals.

Speak of eggs and milk in the human diet.

This material also may be used in the "animal booklet."

*Literature.*—Handbook on Domestic Science and Household Arts; Farmers' Bulletins: No. 63, Care of Milk on the Farm; No. 121, Beans, Peas, and Other Legumes as Food; No. 166, Cheese Making on the Farm; No. 363, Use of Milk as Food.

*Lesson outline.*—(a) Subject: Vegetable protein. Object: To direct attention to cheap vegetable sources of protein in the human diet and as the sole source of protein for many of our domestic animals.

Beans and peas; their importance as a protein food; structure; dried forms; importance of cookery; as food for children.

#### Lesson XVII.

*Subject.*—Bacteria.

*Object.*—To give knowledge of the existence and nature of bacteria and their effect on daily living.

*Subject matter.*—Bacteria are extremely small, simple plant forms. They are present everywhere, reproduce rapidly and are grouped in three main classes, the bacillus, coccus, spirillum. As they relate to human economy they may be designated as useful and harmful bacteria.

Bacteria are single-celled plants and are either parasitic or saprophytic in their nature. The conditions necessary to growth are food, warmth, moisture. Spore formation is not a means of reproduction but of life preservation.

Distinguish between parasitic and nonparasitic plants.

Show that bacteria are the lowest organisms in the plant group and method of laboratory cultivation.

*School lesson plan:* Show by charts the three groups and methods of reproduction by divisions. Compute numbers of germs in six hours beginning with 1. Compute for 12 hours.

Useful bacteria are important agents in the growing of leguminous crops, the souring of milk, manufacture of cheese, making of butter, and as scavengers.

Harmful bacteria are agencies of preventable diseases.

Methods of extermination: (a) Natural disinfection; (b) artificial disinfection.

Show laboratory process of growing germs.

Transfer growing germs to potato to show saprophytic existence.

This lesson should be incorporated in the "plant booklet."

*Literature.*—Bacteria, Molds, and Mildews, Conn; Farmers' Bulletins: No. 29, Bacteria, Useful and Harmful; No. 214, Bacteria Beneficial for Leguminous Crops; No. 92, Bacteria in Cheese Making; No. 2, Bacteria in Milk, Cream, and Butter; No. 16, Nitrogen Gathering Bacteria; No. 203, Bacteria and Yeasts in Fermentation.

*Lesson outline.*—(a) Subject: Dust and its dangers. Object: To teach that dust is a menace to health and to indicate means of control. Subject matter: Origin of dust, composition, relation to disease, and methods to avoid.

*Lesson XVIII.*

*Subject.*—Fermentation.

*Object.*—To teach nature of fermentation; its cause; beneficial and injurious fermentations.

*Subject matter.*—Yeasts, which are living plants, cause fermentation; other organisms to a small extent are concerned in the process. The yeast plant is a small oval-shaped body which multiplies under favorable conditions by "budding." During the growing period yeast plants consume sugar, which they convert into gas ( $\text{CO}_2$ ), alcohol, and water.

Yeasts may be classified as wild and cultivated. They exist in three states: Resting state, common in the form of compressed yeast used in the household arts. Growing state, seen in fermentation of liquors, vinegar, making ensilage, and in the household processes; spore-bearing state, as seen in wild yeasts or in cultivated dry yeast when growth conditions are not present.

Conditions necessary to growth: Warmth  $77^\circ$  to  $95^\circ$  F. or  $25^\circ$  to  $35^\circ$  C., moisture, food. The yeast plant consumes sugar.

School lesson plan: Add yeast to a sugary liquid, later observe the gas; collect and test its properties.

Note the character of the yeast residue (sediment).

From the charts observe the form and structure of yeast plants.

Compute increase in six hours from 1; from 500. Drawings and a description of the uses of the yeast plant may be made part of the "plant booklet."

*Literature.*—Farmers' Bulletins: No. 233, Acetic Fermentation; No. 174, Causes of Fermentation; No. 299, Causes of Milk Fermentation; No. 12, Theory and Causes of Fermentation; No. 60, Tobacco Fermentation.

*Lesson outline.*—(a) Subject: Molds and Mildews. Object: To show nature of molds and modes of preventing injury by them. Subject matter: Appearance, life history, conditions for growth, typical forms, and method of reproduction.

*Lesson XIX.*

*Subject.*—Farm accounts.

*Object.*—To teach children simple, correct methods of keeping accounts of the home and the farm. To correlate agriculture with arithmetic.

*Subject matter.*—The inventory: A simple form for a daybook and journal; balancing accounts. School lesson plan: Make inventories of home and farm articles; make a daybook and journal.

*Lesson outlines.*—(a) Subject: Farm records and accounts. Object: To teach forms for farm records and entries. To familiarize children with various agricultural business forms. Subject matter: Valuable information and interesting work may be accomplished by having pupils write letters to those in other schools and in similar grades in the States or other countries. These letters should describe life, especially agricultural, and each should contain facts that are worth knowing. Teach children to carry on imaginary agricultural transactions of buying and selling agricultural articles and how to make special records of plant and animal products.

(b) Subject: Marketing. Object: To teach those methods of marketing which give large financial returns. Subject matter: Porto Rican exports.

*Lesson XX.*

*Subject.*—Care of milk.

*Object.*—To teach the composition of milk, its value as food, and the proper economical and hygienic ways of caring for it.

*Subject matter.*—From the standpoint of composition, milk is a perfect food, containing all the elements necessary for nutrition and in their proper proportions. Nevertheless for mature animals and for man it lacks in physical properties.

Cows and goats have been most highly developed by man for milk production because they give best results for care and feed expended upon them.

The care of the animal and the feed consumed affects the quality, the nutritive value, and the flavor of milk and also very materially the amount of milk produced.

After the milk is taken from the animal extreme care should be exercised in storing it, since milk absorbs flavors and forms a ready medium for the growth of injurious bacteria.

Milk products are many, few of them are produced without the aid of bacteria, and all are subject to the injurious effects of harmful bacteria.

*School lesson plan.*—Examine a glass of whole milk which has become sour. Notice the parts into which the milk has separated: The cream or fat, the curd or casein, which is the protein, and the whey, which is water containing soluble mineral matter and sugar. Separate the curd from the whey by straining. Evaporate the water

showing solid matter. Burn the solid matter to show carbon. Make a comparative study of the glass of milk with the Langworthy chart.

*Literature.*—Farmers' Bulletins Nos. 29, 363; Bureau of Animal Industry Circular No. 142.

Perhaps a better idea of the work done can be obtained from the following report on the equipment and presentation of the lessons on Insect Life, Flies, and Mosquitoes:

#### INSECT LIFE.

*Equipment.*—A box of large beetles, grasshoppers, sucking bugs, or other insects, were handed out to the teachers present in order that each person might notice the structure of a typical adult insect.

Charts were displayed in the lecture room, showing the life history stages, development and structure of several insect forms, such as flies, beetles, butterflies, grasshoppers, ants, mosquitoes, bees, chagas, and others.

Box of pinned insects of several forms.

Spreading board for preparing butterflies and moths for a permanent collection.

Charts showing spiders and scorpions for comparison with a true insect.

Large centipedes and millipedes to compare with true insects.

Living plants showing the work of injurious insects. Plant lice, scale insects, caterpillar work and other specimens were used.

*Insect lesson.*—Structure of a true insect.

Before giving insect specimens to the teachers to examine, they were asked to give the names of insects with which they were familiar. This question usually called forth a good list of true insects while forms like spiders, centipedes and scorpions were frequently mentioned. The latter were placed in a separate list, and later, their difference from true insects was fully explained. Brief mention was made of the habits and food of spiders, centipedes, etc., to prove that they were beneficial by feeding on insects.

The teachers were then given an insect and asked to notice the structure, as follows: Divisions of the body: Head, thorax, abdomen.

Appendages of the body, namely, three pairs of legs (chief characteristic of a true insect) borne on the thorax, two pairs of wings, also on thorax (exceptions noted).

Parts of the head, namely, 1 pair of eyes, 1 pair of feelers, and the mouth parts. The latter were given special explanation to show how certain insects are fitted for chewing solid food, while others feed on the plant juices. The general method of using arsenical poisons or contact sprays for the chewing and sucking insects, respectively, was at this point explained to the teachers.

#### NEAR RELATIVES OF INSECTS.

By referring to the chart or to specimens, spiders, scorpions, and ticks were shown to have four pairs of legs and a body structure different from true insects. In the same manner centipedes and millipedes were used and the teachers were advised to provide these forms as an aid toward making the study of insects interesting to the children.

#### LIFE HISTORY OF TRUE INSECTS.

The development of life history of insects was next considered. Explanation was made of the fact that some of the injurious forms have complicated life histories which must be known before a remedy can be devised. It was also shown how some insects are injurious in a young, or larval, stage, totally different from the form in which we know them. For example: Maggots are the larvæ of flies, caterpillars of moths and butterflies, and grubworms of beetles (hard-winged insects).

The word "metamorphosis," meaning change, was explained, followed by a discussion of how insects have "complete" or "incomplete metamorphosis."

The three examples just mentioned were used to illustrate insects with a complete change in form and habits between the larval and the adult stages. By means of charts and specimens the complete life histories were explained, showing that these insects have four stages of development: 1, egg; 2, larva; 3, pupa; 4, adult.

Incomplete metamorphosis was shown by using the chunga, grasshopper, or cricket as examples, the young resembling the adult, with no complete change in their form from birth to adult.

The practical side of the study of insect structure and life history was emphasized by showing that some insects were best killed in the larval stage, when a knowledge of their feeding habits is necessary, some in the pupal stage while in the soil, or others in the adult stage, when a knowledge of their general and feeding habits is essential to their control. Predaceous and parasitic insects were also mentioned in connection with the matter of control.

Interest in this lesson was apparent during every exercise. Questions were often asked that showed an alarming lack of information about insect life, and they served to emphasize the need of introducing this subject into the country schools.

#### FLIES AND MOSQUITOES.

*Equipment.*—Glass jar or bottle containing mosquito eggs, larvæ and pupæ in stagnant water, collected from some near-by rain barrel.

Maggots and puparia of the housefly.

Charts showing outline drawings of all stages of the development of flies and mosquitoes.

Specimens of adult flies and mosquitoes showing some of the different species that occur, and representing types of importance, as animal pests or as disease carriers.

*Mosquito lesson.*—Life history and breeding places of mosquitoes were taken up first. The teachers were asked to examine the specimens in the water and to notice the movement of the larvæ. Attention was called to the presence of one air tube, or siphon, at the posterior end of the larvæ and two similar tubes on the head of the pupæ, through which they obtain an air supply. The use of kerosene on the water to kill the larvæ and pupæ was explained at this time.

The life history of mosquitoes was then pointed out, particularly regarding the facts that:

The eggs are always placed on stagnant water found in cisterns, rain barrels, buckets, ditches, discarded dishes, or tin cans, are laid in masses, and hatch in a few days;

The wrigglers (larvæ) develop rapidly, often changing to pupæ in 8 or 10 days;

The pupæ transform to adults in five or six days; and that

The development of the mosquito furnishes a good example for the study of insect life in the schoolroom.

#### DISEASES SPREAD BY MOSQUITOES

Yellow fever, malaria, dengue fever, and elephantiasis were mentioned as being transmitted through the bite of mosquitoes. A brief explanation was made to show that certain mosquitoes are actually necessary for the spread of these diseases. Methods of distinguishing the malarial and yellow fever mosquitoes were also explained.

#### MOSQUITO CONTROL.

Emphasis was placed upon the advisability of teaching the children to look for the breeding places of mosquitoes, and local conditions were frequently mentioned. Necessity for cooperative effort toward doing away with mosquito-breeding places was explained. Following this a short time was devoted to showing how the mosquito larvæ and pupæ might be killed by using kerosene on the water or mosquito breeding prevented by emptying receptacles containing the mosquito wrigglers, by draining ditches and pools of stagnant water, or by securely screening water barrels and cisterns.

#### FLY LESSON.

The life history and development of flies, using the housefly as an example, was gone over in a brief manner, particularly with reference to the following facts that:

Flies lay eggs on all manner of decaying or fermenting vegetable or animal matter. These eggs are laid in great numbers, often 500 to 600 by a single female, and hatch in less than 24 hours.

The maggots reach full growth in from 5 to 10 days. About 90 per cent of the housefly maggots are found in stable manure, especially horse manure, and that the pupa stage lasts for about five days.

#### FLIES AS DISEASE CARRIERS.

Diseases such as typhoid fever, tropical dysentery, and intestinal diseases of children were mentioned particularly as being spread by flies. Necessity for the protection of food, milk, and water from contamination by flies was discussed. The hairy body of the flies, illustrated by an enlarged drawing, was shown to be admirably adapted for carrying disease germs. Mention was also made of the fact that flies may carry disease germs in their bodies.

#### CONTROL OF FLIES.

Particular emphasis was given to the necessity for controlling the breeding places of flies. Such matters as the removal of all stable manure at least once a week, coupled with the frequent use of kerosene or disinfectant sprays and the daily use of lime on the manure piles, were mentioned as factors in fly control. The disposal of all garbage, refuse matter, and foods in such a manner as not to attract the flies was also emphasized.

For direct-control measures the teachers were advised to make use of fly traps, poison fly papers, sticky fly papers, and screens for the kitchen and dining room or wherever food is kept.

Though the work is well begun, it will fall to the ground unless followed up for several years. Agriculture, which is being taught in the summer institutes this year, will help, but to make its teaching efficient constant special supervision and instruction will be required.

The proper value and full dignity of labor have been emphasized and pupils and parents are gradually coming to an appreciation of the work and to a realization that it is not ungentlemanly to soil the hands in manual labor. The line of demarcation between the thinker and the worker is being gradually erased—a very hopeful sign.

In many of the districts public agricultural exhibits have been held with excellent results; and at the annual insular fair collections of fruits and vegetables raised in the school gardens of the island were on exhibition.

The result of agricultural instruction has shown itself not only in the beautification of the school surroundings, but also in the homes of many of the children, where the pupils are raising not only flowers, but fruits and vegetables on their own account.

The work is progressing as satisfactorily as can be expected, and with the teaching force receiving instruction during the year and at the summer institutes being held in Río Piedras, Mayaguez, and Humacao the time is not far distant when agriculture should be placed in the course of study for all the rural and graded schools of the island.

#### INDUSTRIAL WORK FOR BOYS.

As stated in my last year's report, it is a matter of deep regret that instruction along vocational lines is not offered to every boy enrolled in our public schools.

The people of Porto Rico seem to prefer academic instruction, and almost without exception the parents look forward to the time when their sons may become doctors, lawyers, teachers, etc. It is the desire of the department to awaken in the heart of every boy a knowledge of the dignity of manual labor. In Porto Rico there are splendid opportunities for skilled artisans and workers in wood, iron, and other material. The boys, generally speaking, are artistic, and great credit is due them for the work undertaken and finished in the classes. At the second insular fair the following articles made by pupils in the manual-training classes were exhibited: Letter holders, bookracks, stationery holders with compartments, lids, and lockers, tabourettes, library tables with bookshelves, picture frames, chairs, benches, desks, screens, stools, straw baskets of all kinds, and many other articles. This year instruction in woodwork has been offered in 16 districts.

The approximate value of the equipment is \$3,589.72, and the amount spent for material during the year was \$607.78. Seven hundred and fifty-eight boys took advantage of this instruction, an increase of 258 over the preceding year. The following table shows the towns in which industrial work was offered, the number of pupils enrolled, together with their grades, and the summary of the articles made:

Towns.	Number of pupils enrolled.	Grades.	Articles made by pupils.
Río Grande...	16	Eighth and ninth.....	Rulers, towel racks, shelves, tabourettes.
Humacao.....	27	Ninth and tenth.....	Waste-paper baskets, letter holders, bookracks, tabourettes, parlor desk, picture frames, etc.
Yabucoa.....	25	Third and fourth.....	Articles made of fibers, bowls, spoons, baskets, etc.
Caguas.....	58	Seventh, eighth, and ninth....	Bread boards, bookracks, hall tree, lunch table, chairs, screens, stands, etc.
Guayama.....	12	Ninth and tenth.....	Chairs, tables, cabinet for cooking school, stand for basket ball.
Juncos.....	12	Seventh and eighth.....	Broom holder, frames, footstool, curtain roller, armchair, filter stands, etc.
Albionito.....	10	Seventh, eighth, and ninth....	Umbrella stands, shoe boxes, tie racks, corner shelves, furniture for domestic science room.
Coamo.....	28	Seventh, eighth, ninth, and tenth.....	Toys, bookcases, picture frames, fans, clothes rack, shelves, washbasin stands, etc.
Ponce.....	420	Fifth and eighth.....	Chairs, benches, desks, towel racks, bookracks, tables.
Yauco.....	33	Eighth and ninth.....	Hatrack, tables, coat hangers, ash trays, writing desk, tabourettes.
San German...	15	Ninth and tenth.....	Free and mechanical drawing, lamp shades, towel and book racks, clock case, shelves, etc.
Maricao.....	(1)	Fourth and fifth.....	Clay modeling, fruits, dishes, Indian objects.
Maunabo.....	20	Second to fourth.....	Articles of straw, clay, and thread.
Utua.....	35	Seventh, eighth, and ninth....	Bookracks, clock stand, picture frames, writing table, playground swings, and tilts.
Manati.....	21	Eighth and ninth.....	Knife and tool boxes, coat hangers, towel racks.
Bayamon.....	26	Eighth, ninth, and tenth.....	Desks, bookcases, racks, steamer chairs, bookshelves.

<sup>1</sup> Not given.

The pupils enrolled in our rural schools show a remarkable aptitude for this kind of work. Carved coconuts, simple dishes used in their homes, etc., all show great promise. The exhibition of fibrous articles made by the rural school children caused deep admiration at the insular fair. It is the hope of the department to increase the work along this line until every hamlet in the island has a teacher competent to give instruction in these branches in order to enable the pupils to learn to do by doing.

#### SEWING.

Instruction in sewing was given in 54 towns of the island, with the total enrollment of over 5,000 girls who were to be found in grades 1 to 10, inclusive. Generally speaking, the necessary funds for this work were furnished by the school boards, but in some cases the parents of the children provided them with the material. In one or two instances the school boards in towns in which there were sewing classes during the school year 1910-11 were unable to continue the work in this branch, owing to the fact that all of their available funds have been devoted to building schoolhouses. However, they plan to continue the classes next year.

The total amount of money spent for material connected with the sewing classes during the year was \$1,485.03, or an average of \$0.296 per pupil, which is \$0.054 less than the average for the previous year. The classes were taught, as a rule, after school hours and on Saturdays and wherever possible by teachers in the common schools who had special aptitude for the work. The salaries which were paid by the school boards ranged from \$4 to \$15 per school month. The department does not pretend to estimate the good done the island through this instruction, which offers to teachers unique opportunities for study and initiative in getting nearer the children and the parents. In the lower grades simple hygiene is combined with instruction in sewing, and the reasons for personal neatness taught. In the upper grades notebooks with simple stitches and compositions on the manufacture of articles of daily use, such as pins, needles, kind of cloth, etc., are kept. The results obtained have been satisfactory. Anyone who visited the second insular fair and saw the different samples of sewing sent in by every district must have been impressed with the ability of the Porto Rican child in this line of work. Among the articles exhibited were to be found slippers, handkerchiefs, pillowcases, dresses, waists, table covers, napkins, laundry bags, hand bags, book covers, nightgowns, aprons, corset covers, doilies, lace, embroidery, sheets, drawnwork, kimonos, cushions, brush holders, etc.

The course of study followed in the classes in sewing was the same as that given in my report for last year.

The following table shows the towns in which there were classes during the past year, and the grades and number of pupils enrolled:

Town.	Number of pupils enrolled.	Grades.	Town.	Number of pupils enrolled.	Grades.
Trujillo Alto....	86	Second to seventh.	San German....	200	Ninth to tenth.
Carolina.....	72	First to fifth.	Sabana Grande..	30	Third to eighth.
Rio Grande....	14	Eighth to ninth.	Cabo Rojo.....	208	First to eighth.
Loiza.....	105	Third to sixth.	Lajas.....	57	First to seventh.
Fajardo.....	160	Third to ninth.	Mayaguez.....	228	Second to eighth.
Naguabo.....	130	First to sixth.	Maricao.....	49	Do.
Vieques.....	130	First to seventh.	Las Marias.....	58	Third to eighth.
Humacao.....	160	Second to tenth.	Añasco.....	191	First to eighth.
Yabucoa.....	133	Third to eighth.	Aguada.....	55	Do.
Mannabo.....	50	Do.	Lares.....	100	Third to eighth.
Arroyo.....	16	Fifth to sixth.	San Sebastian..	141	Do.
Patillas.....	75	Second to sixth.	Moca.....	80	First to fourth.
Juncos.....	90	Third to eighth.	Isabela.....	82	Third to eighth.
Gurabo.....	75	Do.	Utuado.....	151	Third to ninth.
Caguas.....	218	Third to ninth.	Adjuntas.....	135	First to eighth.
Guayama.....	100	Third to eighth.	Camuy.....	30	Third to eighth.
Salinas.....	108	Second to eighth.	Hatillo.....	30	Third to seventh.
Santa Isabel..	162	Third to eighth.	Arecibo.....	140	Third to sixth.
Cayey.....	170	Third to ninth.	Manati.....	26	Eighth to ninth.
Comerio.....	80	Third to eighth.	Barceloneta....	42	Fourth to seventh.
Agua Buenas..	75	Second to seventh.	Vega Baja.....	74	Second to seventh.
Albionto.....	23	Seventh to ninth.	Vega Alta.....	75	Second to eighth.
Barros.....	44	Second to eighth.	Corozal.....	57	Third to eighth.
Coamo.....	18	Eighth to ninth.	Morovis.....	65	Do.
Juana Díaz..	85	First to eighth.	Toca Baja.....	45	Second to eighth.
Guayanilla....	69	Third to sixth.	Dorado.....	42	Second to seventh.
Pentelias.....	72	Fourth to eighth.	Bayamon.....	129	Fourth to tenth.
Yauco.....	200	First to ninth.			



## COOKING.

During the school year 1910-11 instruction in cooking was offered in but four towns of the island, with a total of 159 girls enrolled. In the past year this was extended to nine other municipalities, making a total of 13 towns offering instruction in cooking, and the number of girls taking instruction in this subject increased to 361. With the exception of San Juan, the equipment has been furnished by the local school boards. The approximate cost of the work, including equipment and supplies, was \$1,170, or an average of a little over \$3 per pupil for the year. This cost per pupil will naturally be reduced during the coming year, owing to the fact that new equipment will not have to be purchased.

Too much stress can not be placed upon the fact that pupils have been taught that health is the natural condition of the body and that we must be well nourished if we are to live happily and with ability to work and to do our part toward the advancement of civilization. The girls have been taught to make practical menus, estimating the cost of the meals. The necessity of variety, of good serving, regular meal hours, and thorough mastication of food has been emphasized. A course of cooking to be used in the public schools of the island has been promulgated by Miss Loreta Boise, formerly professor of domestic science at the University of Porto Rico. The course followed at the present time covers carbohydrates, preparation and food value; proteins, foods which supply protein and preparation of the same; fats, use as food and in cooking; foods, kind and value; batters, kinds, value; beverages, study of coffee, cocoa, tea, and their uses; meats, kinds, value, composition, and preparation; simple desserts.

It is surprising to note the interest shown in these classes by both pupils and parents. Girls who have never done any manual work in their homes are anxious to show what they have learned at the school. In many instances the parents have bought ovens so that the children can make the things which they have been taught in the cooking classes.

The following table shows the towns, the number of pupils who have received instruction in cooking, and the grades in which this work was offered:

Town.	Number of pupils enrolled.	Grades.
San Juan .....	42	Eighth, high school.
Rio Grande .....	8	Fifth and ninth.
Humacao .....	33	Ninth and tenth.
Juncos .....	21	Sixth, seventh, and eighth.
Caguas .....	61	Seventh, eighth, and ninth.
Guayama .....	20	Ninth and tenth.
Aibonito .....	23	Seventh, eighth, and ninth.
Yauco .....	7	Ninth.
San German .....	11	Ninth and tenth.
Mayaguez .....	25	Fifth, sixth, and seventh.
Utuado .....	47	Seventh, eighth, and ninth.
Coamo .....	39	Seventh, eighth, ninth, and tenth.
Bayamon .....	24	Eighth, ninth, and tenth.

## MUSICAL INSTRUCTION.

With one or two exceptions, where special teachers of music are employed, the instruction in singing is given by the regular room teacher, and consists mainly in the teaching of patriotic songs in both English and Spanish, and rote songs for use in connection with the opening and closing exercises and school festivals.

School bands were maintained in 36 municipalities during the past school year, as compared with 29 during the preceding. The bands were composed of 1,479 boys, who received instruction under the direction of a competent teacher.

The funds available for the maintenance of the school bands during the year were \$16,633.12, and were raised as follows: By the school boards, \$11,681.86; by the municipal councils, \$1,032; by public subscription, \$3,939.26. Of this amount 54.85 per cent was paid for salaries of the instructors; 34.62 per cent for the purchase of instruments; 4.32 per cent for the purchase of material, and 0.97 per cent for the rent of rooms used for the music classes, leaving a balance of \$950.

In most instances instruction was given in one of the rooms of the graded school building. An average of 12 hours a week was devoted to musical instruction given outside of school hours. School bands usually play at all school exercises, athletic meets, celebration of school holidays and fiestas, and in some instances give public

concerts on the plazas and accompany the school cadets on their marches. The instruments are kept by the instructors or by the members of the band, who are responsible to the instructor for the proper use and care of them.

The following table gives the statistics of the school bands for the past school year:

Town.	Pupils.	Instru-ments.	Funds.			Salary of in-structor.	Spent for in-strument.	Spent for ma-terial.	Rent paid.	Hours per week expended on music.
			School board.	Town council.	Sub-scription.					
Rio Piedras.....	40									3.00
Carolina.....	25	16	\$739.10			\$225.00		\$14.10		18.00
Fajardo.....	50	30	360.00		\$750.00	360.00	\$725.00	25.00		25.00
Vieques.....	25		225.00		13.37	225.00		13.37		7.50
Humacao.....	25	20	379.24		150.00	180.00	324.74	24.50		11.00
Yabucoa.....	40	26	385.00	\$60.00		360.00	95.00	20.00		18.00
Arroyo.....	22	26	270.00	45.00		270.00			\$45.00	6.00
Patillas.....	25	19	270.00		200.00	270.00	180.00	20.00		12.50
Juncos.....	20	18	200.00		203.10	135.00	242.08	26.02		8.00
Gurabo.....	15	11	106.00		106.00	180.00	14.15	17.85		9.25
Caguas.....	47	34	280.00			270.00		10.00		8.00
San Lorenzo.....	15	10	108.00		8.00	108.00		8.00		8.00
Guayama.....	25		270.00			270.00				8.00
Salinas.....	48	25	760.00			360.00	380.00	20.00		16.50
Santa Isabel.....	63	32	404.45		54.80	360.00	79.25	20.00		7.50
Cayey.....	30	10	50.00		40.00	90.00				10.00
Comerio.....	50	27	180.00	45.00	20.00	180.00		20.00	45.00	26.00
Barros.....	22	12	145.00			135.00		10.00		8.00
Coamo.....		19								
Juana Diaz.....	36	25	405.00		405.00	360.00	425.00	25.00		7.00
Ponce.....	46	20	960.00			360.00	600.00			10.00
Guayanilla.....	30		192.00			180.00		3.00		4.00
Peduelas.....	23	16	225.00			225.00				6.00
Yauco.....	40	36	544.00		150.00	360.00	318.00	75.00		10.00
Cabo Rojo.....	57	34	225.00	260.00		485.00				19.00
Lajas.....	20	15	250.00			225.00	22.00	3.00		24.00
Mayaguez.....	100	34	495.07		117.00	360.00	230.00	22.07		7.50
Maricao.....	25		180.00			180.00				6.00
Afiasco.....	30	18	160.00	220.00	400.00	360.00	325.00	95.00		12.00
Rincon.....	18	18	155.00		443.00	135.00	402.00	61.00		12.00
Aguada.....	23	23	600.00	225.00	150.00	225.00	715.00	35.00		12.00
Lares.....	200	24	115.00			90.00		25.00		18.00
Arecibo.....	98	34	365.50		626.49	360.00	626.49	5.50		17.00
Manati.....	30	20	545.00	75.00		495.00	55.00	70.00		18.00
Vega Baja.....	26	17	270.00			270.00				26.00
Vega Alta.....		3								
Tos Baja.....	50	19	93.50	72.00	93.50	162.00		25.00	72.00	8.25
Toa Alta.....		20								
Dorado.....	40	23	250.00			225.00		25.00		12.00
Total.....	1,479	734	11,661.86	1,032.00	3,939.26	9,044.00	5,786.71	718.41	162.00	.....

## MILITARY DRILL.

By the end of the school year 1910-11 military drill had been established in not less than 21 municipalities of the island, with a regiment of 1,089 boys under drill. Of the 21 companies, 13 were uniformed, while 7 were provided with guns.

In February and March of the present year an inspection of the school cadets was made by First Lieut. Bates Tucker, United States Army (retired), professor of military science and tactics at the University of Porto Rico. At this inspection it was found that there was no uniformity in the organization of the companies nor in the execution of their drill. In most cases the teacher gave the commands and the drill was a combination of boy-scout movements and the old United States Infantry drill regulations of 1904.

The following is an extract of a circular letter issued March 13, 1912, regarding organization:

"The battalion will be made up of companies of three grades: First, companies composed of students regularly enrolled in the high schools of the island, to be known as A companies, with requirements for enlistment as hereinafter stated; second, companies composed of students regularly enrolled in the graded and continuation schools of the island, to be known as B companies, with requirements for enlistment as hereinafter stated; third, companies composed of students enrolled in the public schools of the island, to be known as C companies, with requirements for enlistment as hereinafter stated.

"Students in any of these three classes shall make use of enlistment blanks furnished by the department, to be filled out in full, the physical examination to be made by the supervising principal of the district and over his signature. Said enlistment blanks are now ready and will be furnished in numbers as requested by supervising principals, which blanks, after being filled out, should be returned immediately to this office to be countersigned by the proper officer here, for assignment to the company of the proper classification.

**"REQUIREMENTS FOR ENLISTMENT IN COMPANIES OF THE VARIOUS CLASSES.**

**"A companies.**—Persons eligible to enlistment in companies of this class must be male students in the high schools of Porto Rico, in good and regular standing, with a minimum height of 55 inches and a minimum weight of 75 pounds, and of good physical development and condition. A companies will, if possible, be provided with the regular arms furnished by the United States War Department.

**"B companies.**—Persons eligible to enlistment in companies of this class must be male students regularly enrolled in the continuation or graded schools of the island, in good and regular standing, with a minimum height of 55 inches and a minimum weight of 75 pounds, and of good physical development and condition. If it is possible to secure a sufficient number of arms from the United States authorities, companies of this class will be provided with the same arms as A companies. If this is not possible, where the financial conditions of the school boards seem to warrant, authorization will be made for the purchase of cadet arms and equipment, such arms either to be of service variety or arms having the same general appearance but not capable of being fired.

**"C companies.**—Persons eligible to enlistment in companies of this class shall be male students regularly enrolled in the graded schools of Porto Rico, in good and regular standing, of a minimum height of 51 inches and a minimum weight of 60 pounds. Companies of this class will be furnished, under the conditions stated for class B companies, with light arms of a variety unserviceable for discharge. Other equipment may also be furnished.

"In no instance will enlistment be accepted in companies of any class for less than the remainder of the school year. No companies will be considered as eligible to attend the encampment of the public-school cadets of Porto Rico at Camp Henry, in Cayey, some time during the summer vacation if composed of less than 31 uniformed cadets, including rank and file; and no provision will be made for arming and equipping companies of smaller size.

"The uniforms of all companies must be the same in style and material, and instructions should be requested by those who are organizing companies as to the character of the uniform.

"The first corps of officers shall be chosen as follows: Candidates for officers' positions shall pass an examination set by the commandant and given by the supervising principal, or some one detailed by him. An election shall also be held, at which election all members of the company shall be eligible to vote, and at which election all persons who have passed the examination with a grade of 60 shall be considered as candidates for election. In determining the ranking of candidates by election the person receiving the highest number of votes will be rated as 100. If there are six candidates the person receiving the next highest number of votes will have one-sixth of 100 (that is, 16) deducted from 100, giving him a rating of 84; the person having the third highest number of votes will have a rating of 100— $(16 \times 2)$ , or 68, etc. If the number of candidates were 8, the amount deducted for each place below the first would be 12, and if the number of candidates were 5, the amount deducted for each place below the first would be 20. In the final rating for appointment the examination shall count 2 and the election 1; that is to say, if a certain individual received a grade of 80 in the election and was third man in a group of 6 candidates for election, his final rating would be 80 times 2 plus 68, equaling 228.

"The officers of the company will consist of a captain and two lieutenants, the one receiving the highest rating in the combination of examination and election being captain; the second highest, first lieutenant, and the third highest, second lieutenant. These officers with the approval of the commandant, shall appoint the noncommissioned officers, consisting of 1 first sergeant, 3 sergeants, and 3 corporals for a company of the minimum size. For companies of larger size there shall be appointed 1 additional corporal for each squad of 8 men, considering the corporal as one of the squad. Each company officer shall have an equal vote in the selection of the noncommissioned officers."

Below is a copy of the enlistment blanks used:

*Enlistment blank.*

**PUBLIC SCHOOL CADETS OF PORTO RICO.**

**GOVERNMENT OF PORTO RICO.**

**Department of Education.**

I, \_\_\_\_\_, a pupil in the \_\_\_\_\_ of the public schools of the municipality of \_\_\_\_\_ do hereby acknowledge to have voluntarily enlisted in the Public School Cadets of Porto Rico, on this \_\_\_\_\_ day of \_\_\_\_\_, 191—, for a period which terminates on the \_\_\_\_\_ day of \_\_\_\_\_, 191—, unless said termination is sooner brought about through the severance of my connection with the public schools of Porto Rico.

I do hereby agree, unless prevented by sickness or other unavoidable causes, or excused by those in authority, to obey the orders of the officers and noncommissioned officers that may be appointed over me, and all rules and regulations of the department of education.

*Reenlistment.*

I hereby voluntarily reenlist in the Public School Cadets of Porto Rico for the period which terminates \_\_\_\_\_.

*Transference.*

Transferred this \_\_\_\_\_ day of \_\_\_\_\_, 191—, to the company at \_\_\_\_\_.

*Physical examination.*

**AT TIME OF ENLISTMENT.**

Age \_\_\_\_\_, height \_\_\_\_\_, weight \_\_\_\_\_, sight \_\_\_\_\_, hearing \_\_\_\_\_, general physical appearance \_\_\_\_\_. Are there any physical defects which would disqualify for service as a cadet? \_\_\_\_\_.

\_\_\_\_\_,  
*Examining Officer.*

**AT TIME OF DISCHARGE.**

Age \_\_\_\_\_, height \_\_\_\_\_, weight \_\_\_\_\_, sight \_\_\_\_\_, hearing \_\_\_\_\_, general physical appearance \_\_\_\_\_. Are there any physical defects which would disqualify for service as a cadet? \_\_\_\_\_.

\_\_\_\_\_,  
*Examining Officer.*

Record.....

*Discharge.*

The person covered by this blank has this day been \_\_\_\_\_ discharged with rank of \_\_\_\_\_.

Date \_\_\_\_\_.

The enlistment blank was filled out and signed by the student and sent to the office of the commissioner of education for approval and assignment to the proper class of company. United States Infantry Drill Regulations, 1912, were adopted and the movements and exercises therein prescribed were used from the date of the receipt of the circular letter.

In the following-named towns companies were organized and officers and noncommissioned officers appointed as required in the circular quoted above:

Town.	Number in com- pany.	Hours' practice per week.	Class.	Equipment.
San Juan.....	35	2	A	United States.
Caguas.....	50	3	B	School board.
Do.....	69	3	C	None.
Ponce.....	70	3	A	United States.
Yauco.....	44	3	B	School board.
Do.....	62	3	C	None.
San German.....	40	3	B	School board.
Do.....	40	3	C	None.
Mayaguez.....	44	3	A	Do.
Do.....	50	3	B	School board.
Bayamon.....	50	12	B	Do.
Juana Diaz.....	60	3	B	Do.

Twelve companies organized; 614 cadets regularly drilled.

In addition to the above, the table below shows the enrollment of cadets in the various towns where the organization of companies was not perfected. In some of the towns, however, drill has reached a high state of efficiency.

Rio Piedras.....	<sup>1</sup> 45	Coamo.....	32
Rio Grande.....	45	Cabo Rojo.....	37
Loiza.....	35	Lajas.....	41
Fajardo.....	<sup>2</sup> 60	Mayaguez.....	81
Naguabo.....	<sup>2</sup> 38	Maricao.....	38
Humacao.....	66	Isabela.....	93
Yabucoa.....	38	Adjuntas.....	<sup>2</sup> 55
Patillas.....	35	Arecibo.....	100
Juncos.....	<sup>2</sup> 41	Vega Baja.....	<sup>3</sup> 64
Guayama.....	100	Vega Alta.....	<sup>3</sup> 24
Cayey.....	50	Corozal.....	60
Comerio.....	31		
Aguas Buenas.....	31	Total.....	1,240

It will, therefore, be seen that the public-school cadet movement has reached 31 towns, with a total enrollment of 1,854 boys. The school boards of 10 towns have provided for their companies equipment consisting of 40 cadet rifles with bayonet; 40 belts with bayonet, scabbard and cartridge boxes; 3 swords and belts for officers, and 1 sword and belt for first sergeant.

In addition, two of the high school companies have United States Army equipment loaned by the University of Porto Rico and two others have wooden guns, making 14 companies fully equipped.

To encourage the work in military science and tactics, the last legislative assembly appropriated \$1,000 for the purpose of defraying expenses connected with the encampment for the public-school cadets. All the necessary arrangements were made and the encampment would have been held at Henry Barracks, Cayey, commencing June 22, 1912, had it not been for the outbreak of bubonic plague in San Juan just prior to the date set. Had it been held as planned, eight companies fully uniformed and equipped would have been present. It is the intention of the department to have the cadet encampment take place during the early part of September, just a few weeks before the opening of the school year 1912-13, and instructions to that effect have already been issued.

Not only has military drill had a good effect in healthful exercise and in aiding the proper physical development, but it has done much to inculcate a prompt and cheerful obedience to orders as well as to enable the officers to develop their abilities and qualities as leaders. In many cases the teachers have reported a wonderful improvement in the discipline of their schools since the introduction of the military drill and the parents of many of the boys have stated that they would like to see the drill made compulsory.

<sup>1</sup> Drilled with the cadets of the University of Porto Rico.

<sup>2</sup> School board equipment.

<sup>3</sup> Wooden guns.

The only drawback in the work has been the lack of teachers who understand military drill to supervise the exercise. It is hoped, however, that the school boards of towns where teachers competent to take charge of this work are not found will as soon as possible secure teachers from the University of Porto Rico or from some other institution where they have had an opportunity to study military tactics.

In addition to the military companies mentioned in the following table several of the towns have companies of Boy Scouts not infrequently under the direction of one of the teachers as scout master:

Town.	Cadets enrolled during year.	Date introduced.	Hours practice per week.	Equip-ment.	Uni-form.	Remarks.
San Juan.....	25	January, 1912...	2	Yes...	.....	United States equipment. Drilled with cadets of the university.
Rio Piedras.....	45	December, 1911..	3	Yes...	No...	
Carolina.....	.....	1910.....	2	No...	Yes...	Not regularly organized; school-board equipment. Do. Not regularly organized. Do. Do.
Rio Grande.....	45	1909.....	5	No...	Yes...	
Loísa.....	25	January, 1912...	6	No...	No...	
Fajardo.....	60	May, 1911.....	2	Yes...	Yes...	
Naguabo.....	28	April, 1912.....	.....	No...	No...	
Humacao.....	66	February, 1912..	5	No...	No...	Not regularly organized. Do.
Yabucoa.....	38	do.....	7	No...	No...	
Arroyo.....	.....	.....	.....	.....	.....	Do.
Patillas.....	25	March, 1912.....	3	No...	24	
Juncos.....	41	April, 1912.....	3	Yes...	No...	School-board equipment. School-board equipment for 1 company.
Caguas.....	119	March, 1912.....	3	Yes...	Yes...	
Guayama.....	100	November, 1911..	4	No...	No...	Not regularly organized. Do.
Cayey.....	50	April, 1912.....	6	No...	No...	
Comerio.....	31	November, 1910..	5	Yes...	Yes...	Do. Do.
Aguas Buenas.....	31	January, 1911...	3	Yes...	No...	
Coamo.....	22	March, 1912.....	6	No...	No...	Do. Organized; school-board equip-ment.
Juana Díaz.....	60	November, 1911..	3	Yes...	Yes...	
Ponce.....	70	December, 1910..	3	Yes...	Yes...	Organized; United States equip-ment. School-board equipment for 1 company.
Yauco.....	106	October, 1910.....	3	Yes...	Yes...	
San German.....	80	February, 1912...	3	Yes...	Yes...	Do. Do.
Cabo Rojo.....	37	April, 1912.....	2	No...	No...	
Lajas.....	41	do.....	5	No...	No...	Do. Organized.
Mayaguez.....	175	March, 1912.....	3	Yes...	Yes...	
Maricao.....	38	April, 1912.....	3	No...	No...	School-board equipment.
Isabela.....	93	March, 1912.....	2	No...	No...	
Adjuntas.....	55	do.....	4	Yes...	No...	Wooden guns. Boy Scout uniform, wooden guns.
Arecibo.....	100	.....	.....	.....	.....	
Vega Baja.....	64	November, 1911..	44	Yes...	Yes...	School-board equipment.
Vega Alta.....	24	October, 1911.....	3	Yes...	Yes...	
Corozal.....	60	do.....	3	No...	No...	School-board equipment.
Bayamon.....	50	April, 1912.....	12	Yes...	Yes...	
Total.....	1,854	.....	.....	.....	.....	

#### SCHOLARSHIPS.

The legislative assembly has at various times made provision for the maintenance of deserving students at different educational institutions by the establishment of scholarships, and at present I doubt if there is a more complete system of scholarship support in vogue in any country. In fact, it is possible for the bright pupil in the remotest barrio within the island to be carried through to graduation at the best university in the United States entirely as a Government scholarship student.

Through legislation passed in 1908 school boards are empowered to use an amount of their funds not to exceed 5 per cent of the total for the purpose of maintaining in the graded schools of the urban center of the municipality pupils who have completed with credit the work of the rural schools. During the past year 27 such scholarships students have been maintained by 11 school boards, at a total expense of \$2,196. This makes it possible for the bright child in the barrio to secure his eighth-grade diploma as a scholarship student in the urban center. Having received his eighth-grade diploma, there are open to him, through appointment by the commissioner of education, 80 scholarships, of an annual value of \$108 each, in the high schools of the island. Since the amount mentioned is actually paid over to the scholarship student in cash, and since there are no charges for tuition, textbooks, or supplies, it is quite possible for the student to maintain himself entirely upon his scholarship allotment.

In case the preference of the eighth-grade graduate leads him in another direction, there are open to him scholarships in the agricultural college connected with the University of Porto Rico, ranging in value from \$40 to \$100 per annum. Deserving students hold these scholarships for the full four-year course of the agricultural college and are graduated as scientific agriculturists.

To students who have completed the first year in the high schools or continuation schools of the island—(that is, have completed the ninth-grade work in the school system) there are open 75 scholarships in the normal department of the University of Porto Rico, each of a value of \$200 annually. Graduation from this department of the university means immediate entrance into the corps of public-school teachers of the island with a practically assured income during good behavior.

To students completing the common-school course is also open another class of scholarships for study in Tuskegee Institute, Hampton Institute, or other institutions of a similar character in the United States. Twenty scholarship students are maintained in this class, each receiving an annual income from the Government of \$250.

The most desirable of all the scholarships maintained by the Government of Porto Rico are those providing for study in the colleges and universities of the United States, such scholarships being of an annual value of \$500. The law establishing these scholarships provided 25 for men and 14 for women, although of recent years the annual appropriations have not provided for so large a number of either sex. The law requires that the commission entrusted with the appointment of such scholarship students shall in the case of men give preference to the students who wish to fit themselves as scientific agriculturists, engineers, or foresters. At present those of this class are pursuing courses in Columbia University, Cornell University, University of Pennsylvania, Pennsylvania State College, Ohio State University, University of Louisiana, Massachusetts Institute of Technology, and other prominent institutions of the United States.

Aside from the classes of scholarship students maintained by the central government of Porto Rico the legislative assembly in 1911 empowered the municipalities of the island under certain restrictions to maintain scholarship students in colleges and universities of the United States out of their own funds.

These beneficiaries must pursue courses leading to degrees in one of the following subjects: Agriculture, agronomy, forestry, and the various branches of engineering. Already five or six students have been granted scholarships under this act and will begin their studies at the opening of the school year 1912-13.

#### NIGHT SCHOOLS.

According to the school law the commissioner of education, upon application from 20 or more young people who can not attend the day schools, may establish night schools. These are as a rule in charge of regular day school teachers who receive an extra compensation of \$10 per school month. There is a two-hour session each night, five nights in a week, and during seven months of the school year. The subjects taught are writing, arithmetic, language, history, geography, physiology, and hygiene.

The following is an extract from a circular letter sent to the supervising principals under date of October 23, 1911, regarding the work to be done in this class of schools:

"In order that the work which we expect to have done in the night schools which open to-day may be more uniform and efficient, the following suggestions are given:

"Unless there is some good reason to the contrary, the following subjects are to be taught in each night school: Arithmetic, Spanish, English, writing, hygiene, geography, and history and civics.

"Assuming that there are two groups in each night school, each group should receive a 15-minute class daily in arithmetic, in Spanish and in English. Fifteen minutes should be devoted to a general class in writing. A 5-minute period at the end of the first hour should be given to relaxation. During the last 10 minutes of the session the teacher should give a talk on hygiene, based on Ames' Hygiene for the Tropics, in the hands of the teacher, three nights each week, a talk on geography one night, and one on history and civics the remaining night.

"In arithmetic the four fundamental processes should be taught largely by oral drills, giving special emphasis where the pupils seem to be weak. Generally speaking, the pupils enrolled in our night schools will be found to be quick at figures. Do not permit long drawn-out analyses, and in this subject, as well as in the others, remember that those methods which are suitable for the immature pupils in the day schools may not be suitable for the more mature pupils in the night schools.

"In Spanish a book should be placed in the hands of the pupils at once. Do not use the chart. Employ the word and syllable method and have the pupils begin

reading as soon as possible. If they can finish the "Cartilla" let them do so, and then go on to the next book. In all subjects see that the class progresses as fast as the ability of the pupils will permit.

"In English the word method should be employed, using common terms, and the sentence method should be taken up as soon as possible. In these schools the teacher can translate from one language to the other. Have the work made eminently practical, giving the pupils a stock of phrases which they can use in their daily work. The teacher should have a copy of Lord's Lessons in English at hand to serve as a guide.

"In writing, each pupil should be furnished with a writing book from the start and allowed to take this book home. Care should be taken to show the pupils how to hold the pencil or the pen, and large writing should be insisted upon. Most of the pupils come to the schools with their hand muscles tired and cramped after a hard day's work, and this makes the use of large letters all the more important. Instruct your teachers to teach the arm movements, but not the finger. The blackboard should be used freely in all work, but particularly in practicing writing. Insist on the pupils copying from the models in the writing book.

"The general talks to be given during the last 10 minutes of each session should be within the reach of the pupils. See that the teacher gives the reasons for the hygienic rules which he teaches, and that he takes a few minutes to have the class tell what was discussed the night before. In geography the teacher should give general ideas with a view to widening the horizon of the pupils, but keeping constantly in view the commercial and industrial aspects of the subject.

"In the discussions in history and civics, politics must be avoided, and sound ideas on democratic government inculcated in a practical way. All these talks should be made interesting, and careful preparation on the part of the teacher should be required. Check any attempt on the part of the teachers to make a display of their erudition. Each pupil should be furnished with a composition book for his work and be allowed to take it home. In your visits notice if there are pupils in the night schools who should be in the day schools, and, if possible, have them transferred."

During the school year, 149 urban and 209 rural night schools were established. In the former the annual enrollment was 8,594 and the average daily attendance 3,566. In the latter the annual enrollment was 8,254, with an average attendance of 4,273. In some of the urban and rural night schools work was offered from the first to the fifth grades inclusive. The majority of the supervising principals in their annual reports speak highly of the efficiency of the work done in this class of schools.

*Distribution, by age and sex, of pupils enrolled in night schools, March 1, 1912.*

Ages.	1911			Per cent at each age.	1912			Per cent at each age.
	Boys.	Girls.	Total.		Boys.	Girls.	Total.	
Over 18 years.....	1,446	94	1,540	31.0	3,851	217	4,068	39.7
18 years.....	346	47	393	7.9	902	98	1,000	9.8
17 years.....	254	45	299	6.0	554	97	651	6.2
16 years.....	331	54	385	7.8	728	161	889	8.7
15 years.....	399	93	492	9.9	768	194	962	9.4
14 years.....	423	112	535	10.8	688	167	855	8.2
13 years.....	306	107	413	8.3	488	134	622	6.1
12 years.....	357	142	499	10.1	511	174	685	6.7
11 years.....	103	43	146	2.9	120	60	180	1.7
10 years.....	118	53	166	3.4	135	70	205	2.0
9 years.....	37	13	50	1.0	42	25	67	0.7
8 years.....	17	14	31	0.6	30	23	53	0.5
7 years.....	8	1	9	0.2	4	8	12	0.1
6 years.....	1	2	3	0.1	2	1	3	.....
5 years.....	1	.....	1	.....	.....	.....	.....	.....
	4,142	820	4,962	100	8,823	1,429	10,252	100

If we consider as adults those over 18 years of age, we find that, of the total membership of 10,252, 39.7 per cent, or 4,068, could be so classified. This number is much higher than it was last year. In fact, 2,528 are new students who enrolled in the night schools for the first time. These schools more than justify the expense incurred, as 2,752 pupils were promoted and covered more than the year's work.



## EXAMINATIONS.

During the school year the usual examinations were conducted by the department of education. They are uniform throughout the island and are conducted by an examining board composed of the assistant commissioner, the three general superintendents, and the chief of the division of records. The usual examinations given during the year are: For the common-school diploma; for the ninth and tenth grades in continuation schools; for the different classes of teachers' licenses; for the permanent license; for authorization to teach in the English language; the yearly examinations in English for Porto Rican teachers, as provided by law; and an examination in Spanish for the teachers of English.

The questions for all these examinations are made up in the office of the commissioner and are sent out in sealed envelopes to the persons who are to conduct them and are not opened until the candidates are seated and ready to begin work. All candidates and papers are numbered and the persons who correct the papers have no means of knowing the names of the candidates. The services of the high and normal school teachers and of the supervising principals have been obtained to correct the papers and a uniform system of marking is used.

The questions for all examinations of the present year were made rather difficult, but at the same time an attempt was made to test thoroughly the knowledge of the applicants. An effort has been made to make the examinations something more than a mere test of the person's ability to answer technical questions and to put things on paper. The fact that the members of the examining board are in close touch with the schools and teachers of the island has made it possible to keep constantly in mind the needs of the schools and the ability of the teachers and pupils.

In order to obtain the common-school diploma, an examination must be passed in the following subjects: Spanish language, English language, arithmetic, geography, physiology and hygiene, history of the United States and Porto Rico, and civil government. An average of 75 per cent must be obtained, with no subjects below 60 per cent.

An examination for the common-school diploma was held in September, 1911, for those pupils who had obtained credits in the previous one in June and for those who had so nearly completed the work of the eighth grade at the end of the year that they were allowed to study under private tutors during the summer months in preparation for the examination. One hundred and eighty-nine candidates took this examination and only 50 were granted diplomas. This shows rather conclusively that it is difficult for pupils to prepare themselves for examination during the summer months, and the wisdom of continuing them in September is doubtful. However, as the main object in holding the latter is to give those pupils who secure credits in the June examinations an opportunity to pass the subjects in which they fail. Even with this small percentage of successful candidates, the fact that a few pupils are not compelled to repeat the entire year's work more than repays the board of examiners for the time and labor spent.

A special examination for the eighth-grade pupils of San Juan and Ponce was held at the close of the first term, in December, 1911, since in these two towns classes had finished the work of the eighth grade. Ninety-eight candidates took the examinations and 71 passed.

There were 1,622 candidates for the common-school diploma at the close of the school year. Of these 1,204 were successful, 146 received credits in some subjects, and 272 were failures. The pupils who received credits will be entitled to examination in the subjects in which they failed in the September examinations of next year. In order to obtain credits, pupils must pass with marks of 75 per cent in at least five subjects.

Examinations for the pupils of the ninth and tenth grades in the continuation schools, which are equivalent to the first and second years of the high schools, were held at the same time as those for the common-school diploma. The subjects included in the ninth grade are Spanish language and literature, English language and rhetoric, physical geography, ancient history, algebra, domestic science, and manual training. The pupils who pass four subjects of the ninth grade with marks of 70 per cent or more are entitled to enter the normal department of the University of Porto Rico without further conditions. They may also enter any of the regular high schools of the island with full credit in the subjects passed. Likewise, the pupils of the tenth grades may enter any of the established high schools with credit in the subjects approved.

Examinations for licenses as rural, graded, and principal teachers were held twice during the year, in August and April. The subjects required for the rural license are English language, Spanish language, arithmetic, geography, history of the United States and Porto Rico, nature study, physiology and hygiene, and method of teaching. Candidates for the graded license must pass examinations in all subjects required for the rural license and in addition thereto in pedagogy and civil government of the United States and Porto Rico. Those for the principal's license must pass an examina-

tion in all subjects required for a license to teach in the graded schools as well as in elementary physics, Spanish literature, English literature, algebra, and geometry.

Candidates for the rural license must possess the common-school diploma or its equivalent, and must be at least 17 years of age. Those for the graded license must have had at least one year's experience as a rural teacher and be at least 19 years of age, and for the principal's license at least two years' experience in teaching and be at least 21 years of age. All candidates must present medical certificates with their applications. All applications for examinations for teachers' licenses are made on blank forms furnished by the department of education, and in addition to certifications from responsible people concerning the moral character and conduct of new applicants must be approved by the supervising principals of the district from which they are made.

The August examinations are held for those persons who secure credits in the April examinations and for those who are studying in the summer schools maintained by the normal department of the University of Porto Rico and by the department of education. No credits are given for the examinations in August, and a person who has credits from those in April must necessarily pass the other subjects in the August examinations.

There were 12 candidates for the principal's license, 159 for the graded, and 374 for the rural in the August examinations. Of these, 7 secured the principal's license, 51 the graded, and 111 the rural. In the April examinations there were 10 candidates for the principal's license, 197 for the graded, and 241 for the rural. Of these, no one received the principal's license, although 9 secured credits and will take the remaining subjects in the August examinations of next year; 24 secured the graded license, and 126 received credits; 69 received the rural license and 136 received credits.

When we consider the high standard of the examinations, the percentage of complete failures is very small, and the class of persons now passing the examinations for teachers' licenses is indicated by the results.

As required by law examinations for the permanent diploma as principal, graded and rural teachers were held last August. These must include for each grade of diploma the subjects prescribed for certificates in the respective grades, and for the principal and graded diploma in addition thereto psychology and the history of education, and for the rural diploma the history of education. All candidates for these diplomas must have had at least five years' experience in the public schools of Porto Rico. There were no candidates for the principal and graded diplomas, and but one for the rural. This candidate was successful and now holds the only life diploma in the island.

The English graded license is simply an authorization to graded teachers to give instruction in the English language, and teachers so authorized receive an extra compensation. These examinations are of a practical nature and are given by one or more of the general superintendents or other high officials in the department of education on the occasion of visits to the different towns of the island. The teacher is usually examined, after he has been recommended for examination by the supervising principal, in his own room, and he must demonstrate not only his ability to give instruction in the English language, but must possess the other qualifications necessary for his success as a teacher. This class of license is also granted to the graduates of the normal department of the University of Porto Rico upon the recommendation of the faculty. The recommendations are based upon the ability of the students as shown in their practice classes extending over a considerable period of time. During the year, 183 teachers were granted the English graded license. Of these, 111 were by examination and 72 upon the recommendation of the faculty of the normal school. This gives a total of 827 teachers authorized to teach in the English language.

The law provides that all Porto Rican teachers must pass an examination in the English language each year and prescribes a progressive course of study. The courses given last year by the department were the elementary, based on Flounder's Language and Grammar; the intermediate, based on Guide Book to English, No. II; and the advanced, based on Hughes's Securing and Retaining Attention. The work to be done in each of these courses was carefully outlined, and weekly classes were conducted by the American teachers or by the supervising principals.

The examinations in these courses are both oral and written. The former are conducted by examining boards usually consisting of the supervising principal of the district and two other persons. Each teacher is required to demonstrate his ability to use conversational English. These practical examinations are based upon the text used and on other matters of practical interest.

Nineteen teachers failed to pass these examinations, which were held near the close of the school year. The law provides that they shall be given another opportunity within three months from the date of the first examination, at which time they must necessarily be successful in order to retain their licenses.

Those teachers who took the examinations in English at the close of the summer institute in 1911 and obtained ratings of 75 per cent or more, as well as all teachers holding a principal's license issued since 1904 and actually engaged in public-school work, were exempted from the examinations in May. The last session of the legislature approved an act whereby all teachers who hold the English graded license and have passed the advanced English examination for two successive years are exempted from all future examinations. Under this provision of law 469 teachers were exempted this year, and the number will gradually increase, since no teacher is allowed to take the elementary or intermediate examination for more than two years.

Although the law does not require it, courses in Spanish were offered to the American teachers employed by the department. The courses were not obligatory, but the department recommended that as many teachers as possible avail themselves of the opportunity to pursue a definite and practical course in Spanish. Two courses were offered: An elementary, based on Spanish Simplified, by Knoflach, and an advanced, using as the text *A Practical Course in Spanish*, by Monsanto and Languellier.

At the close of the courses written and oral examinations were held, the same methods being used as for the English examinations for the Porto Rican teachers. Thirty-six took the examinations and only one failed. As the law allows principals' licenses to be granted to holders of diplomas from recognized colleges and universities of the United States after two years of experience in school work and after passing an elementary examination in Spanish, many of them are now eligible for that class of license.

#### SUPERVISION.

Almost from the beginning of military government the educational authorities have devoted particular attention to the supervision of schools. Sometime in the year 1899 the island was divided into 16 districts, and an equal number of officers, known as English supervisors, were appointed. Their salary was \$50 per month, in addition to which they received certain allowances for traveling expenses. As determined by the insular board of education, the duties of the supervisors were:

1. To hold teachers' meetings for instruction in English and methods.
2. To render a monthly report upon all schools of their district, including special reports upon enrollment, methods, condition of school buildings and surroundings, the program followed in the school, the progress made in individual subjects.
3. To pay the teachers their monthly salary checks.
4. To distribute and keep account of all textbooks and Government supplies for the district.
5. To preside at the quarterly examinations given by the insular board of education for teachers and for students desiring to enter secondary schools.
6. To act as a direct representative of the insular board in securing school buildings, in seeing that the school laws are enforced, in seeing that buildings conform with the requirements of the school laws, in stimulating local action in the way of securing school supplies, and in investigating the multitude of petitions and complaints pertaining to the schools of the different municipalities.

The first school law enacted under the insular government, in 1901, continued the the office of English supervisor, changing the name to superintendent of schools. No particular duties were assigned to superintendents, who should be "subject to the commissioner in all respects."

The school law of 1903, a very elaborate document marking a distinct advance over the previous one, constitutes as follows the duties of the superintendents of schools:

"Superintendents of schools shall be at all times under the immediate control and guidance of the commissioner of education, who shall prescribe their duties. They shall, in every respect consistent with the welfare of the schools, cooperate and assist their respective school boards in the performance of their duties under the law. They shall receive the cordial support and assistance of the officers and the members of the school boards and of the teachers of the schools in the district and of the parents of the children in their schools, and their functions as representatives of the commissioner of education shall be respected and obeyed. They shall be furnished by their school boards with a suitable office for the transaction of their public business, or office rent in lieu thereof, but with no house rent. They shall make an annual report to the commissioner of education on the condition of the schools in their district. Said report shall be presented June 1 of each and every year. They shall make such additional reports, statistical or otherwise, as the said commissioner may direct."

These duties, with few changes, have continued to the present time. The number of districts organized first, 16, continued till the year 1902, when the number was increased to 19. With the exception of the year 1903-4, in which the number of districts was reduced to 18, the island continued to be divided into 19 districts until 1908.

Through legislation passed at the session of the insular legislature of 1908, the island was newly districted and provision made for 35 districts, as well as for an automatic increase as the necessities of the different districts demanded, and also for three general superintendents instead of one.

The general superintendents are not assigned to special parts of the island, but the movements of all three are controlled by the commissioner of education, and they spend the larger part of their time in visiting the teachers of the different districts and in consulting and advising the supervising principals. They report on conditions direct to the commissioner.

For the school year 1911-12 the island was divided into 41 districts, and the following list shows the municipality or municipalities in each, together with the supervising principal, which is the title given to the new supervisory officer. In each district the first municipality named is the headquarters:

1. San Juan, R. S. Garwood, acting.
2. Rio Piedras and Trujillo Alto, Cecil E. Stevens.
3. Carolina, Francisco Vizcarrondo.
6. Rio Grande and Loiza, Rafael W. Ramírez.
7. Fajardo, R. B. Barlow.
8. Naguabo and Vieques, E. N. Lydick.
10. Humacao, H. F. Rockey.
11. Yabucoa and Maunabo, Andrés Rodríguez Díaz.
14. Arroyo and Patillas, Charles E. Miner.
17. Juncos and Gurabo, Celestino Benítez.
18. Caguas and San Lorenzo, Theo. L. Morin.
19. Guayama, George V. Keelan.
20. Salinas and Santa Isabel, C. L. Lang.
21. Cayey and Cidra, Manuel Negrón Collazo.
24. Comerio, Aguas Buenas, and Naranjito, Pedro N. Ortíz.
25. Aibonito and Barranquitas, Ismael Maldonado.
27. Barros, Carlos Brunet.
28. Coamo, Ramiro Colón.
30. Juana Díaz, Frank E. Swart.
31. Ponce, Charles H. Terry.
33. Guayanilla and Peñuelas, F. Rodríguez López.
34. Yauco, Manuel G. Nin.
36. San German and Sabana Grande, George H. Hamor.
38. Cabo Rojo and Lajas, Francisco Vincenty.
39. Mayaguez, M. A. Ducout.
41. Maricao and Las Marias, C. Torres Reyes.
42. Añasco, Rincon, and Aguada, Carlos V. Urrutia.
45. Lares, G. W. Mills.
46. San Sebastian, M. Rodríguez Cancio.
48. Aguadilla and Moca, J. G. Ginorio.
49. Isabela and Quebradillas, C. J. Kelley.
50. Utuado, J. R. Buterbaugh.
51. Adjuntas and Jayuya, William F. Littlefield.
54. Camuy and Hatillo, Juan E. Castillo.
56. Arecibo, J. Padín.
57. Manati and Barceloneta, Jos. C. Morin.
59. Ciales, George P. Leete.
61. Vega Baja and Vega Alta, Frederick Yates.
64. Corozal and Morovis, D. M. Gilbert.
65. Toa Baja, Toa Alta, and Dorado, Charles A. Piper.
68. Bayamon, Juan P. Blanco.

The following table shows the number of visits made by the supervising principals to the graded and rural schools as well as the time spent in actual inspection.

Districts.	Visits in graded schools.	Visits in rural schools.	Total visits.	Actual time spent in schools.		Average time per visit.	Average number of visits per teacher.
				Hours.	Minutes.	Minutes.	
San Juan.....	906	122	1,127	433	40	33	9.3
Rio Piedras.....	226	140	374	175	55	26	9.1
Carolina.....	189	145	334	186	5	33	12.4
Rio Grande.....	163	242	405	126	40	19	8.3
Pajaro.....	246	122	368	178	55	29	8.4
Naguabo.....	194	199	393	156	45	24	9.8
Humacao.....	186	235	421	199	26	29	9.2
Yabucoa.....	158	187	345	217	13	38	9.9
Arroyo.....	204	213	504	185	40	22	12.6
Juncos.....	363	194	557	386	20	42	16.4
Caguas.....	349	161	510	272	2	23	9.3
Guayama.....	359	173	531	321	10	26	14.4
Salinas.....	233	205	438	227	15	31	12.5
Cayey.....	367	189	556	352	5	38	12.2
Comerio.....	205	192	397	156	10	24	11.7
Albionito.....	216	98	314	172	16	33	10.8
Barros.....	165	181	346	197	30	34	16.5
Coamo.....	268	165	433	335	15	46	14.0
Juana Diaz.....	163	219	382	209	48	33	8.7
Ponce.....	899	370	1,269	360	10	17	9.4
Guayanilla.....	143	198	341	139	26	26	11.0
Yauco.....	303	210	513	175	38	23	10.5
San German.....	301	328	629	242	55	23	10.8
Cabo Rojo.....	149	348	497	254	26	31	8.9
Mayaguez.....	348	205	553	351	15	34	8.0
Miraflores.....	222	236	458	170	45	22	13.1
Aflaco.....	262	273	535	231	45	26	10.9
Lares.....	115	193	308	173	55	34	9.1
San Sebastian.....	240	194	434	218	26	30	15.0
Aguadilla.....	173	97	270	102	45	23	6.1
Isabela.....	260	331	591	180	10	18	16.4
Utua.....	153	263	416	263	30	43	9.9
Adjuntas.....	155	320	475	192	26	24	12.8
Camuy.....	201	268	469	213	50	26	13.9
Arecibo.....	315	283	598	272	20	27	8.7
Manati.....	285	156	441	209	15	28	11.0
Ciales.....	176	239	415	218	15	32	15.4
Vega Baja.....	288	180	468	246	16	33	14.6
Corozal.....	160	183	343	141	50	26	11.4
Torres.....	185	174	359	128	1	21	9.2
Bayamon.....	238	197	435	196	26	27	8.9
Total.....	10,896	8,661	19,557	9,103	7	26	10.7
Average.....	265.8	211.7	477.5	222	.....	.....	.....

From the above table it will be noted that the total average time actually spent in the schoolrooms by each supervising principal was 222 hours. This does not take into account the time spent in reaching the schools, which would be at least twice the above figure.

Most of the rural schools are located in barrios very remote from the offices of the supervising principals. In many cases an entire day must be spent in making a visit to one school. Many trails lead over the steep sides of the mountains and across streams which are often impassable. At times the work of visiting the rural schools is not only difficult but dangerous. In the mountainous regions it is often necessary to return to town after visiting one rural school in order to take up a trail leading to another not very far distant from the first, but on the opposite side of a steep and narrow mountain range.

In fact, the supervising principal in a rural district spends the greater part of his time in the saddle, and at best the work of supervision is a difficult and arduous task, since the supervisor must be almost constantly exposed to the tropical sun and rain. To do good work he must have two strong and sure-footed horses to use on alternate days, and must always be ready to sacrifice his own personal comfort and convenience in order to give the schools the necessary supervision.

When we consider that the actual average number of school hours in the school year is 900 and that an average of 222 hours were actually spent in the classrooms by the supervising principals we see that but little, if any, time is left from the actual school day for the office work, which is usually quite heavy. After taking care of the correspondence and the various reports and other clerical work of the office, the supervising principal still finds time to attend to the various other details of the work.

The average of 477.5 visits for the year gives each supervising principal approximately three visits a day for each day of the school year. The minimum time allowed for a visit is 15 minutes, and it will be noted that the average time of the visits is almost double the minimum.

The average of 10.7 visits per teacher, which is an average of more than one visit to each teacher for each month of the school year, is an increase of approximately eight visits per teacher since the year 1906-7. This is due to the increase in the number of the supervisory force and to the redistricting of the island. However, a comparison of the total number of visits in relation to the number of supervisors shows that the ratio of visits has increased as from 1 to 6.5.

In addition to the visits to the day schools as shown above, 1,494 visits were made among the night schools, an average of 37 for each supervising principal for the seven months during which the night schools were open.

#### ANALYSIS OF SCHOOL CONDITIONS.

##### NOMENCLATURE.

In a study of the school statistics of different States confusion often arises from the lack of uniformity in the use of terms, and the value of statistics for purposes of comparison is impaired by the lack of uniformity in compiling them. In order that the schools of Porto Rico may be effectively grouped in numerical statements the following definitions of the different terms used are given:

Total enrollment is equivalent to total number of pupils enrolled during the school year, exclusive of duplicates. These are the original enrollments and do not include pupils previously (during the same year) enrolled in any school or town of the island.

Average daily enrollment is the same as "average number belonging" or "average membership." A pupil who leaves school without intention of returning is immediately dropped from the roll. He no longer belongs to the school. If a pupil for any other reason is absent for five consecutive school days, he is marked absent for the five days and then temporarily withdrawn or dropped from the roll until his return. The average daily enrollment is found by adding the number of pupils enrolled each day and dividing the sum, which is the "aggregate enrollment," by the number of school days in the year. The length of the school year in Porto Rico is uniformly nine months, except in night schools, which function during seven months. The number of days, exclusive of holidays, was therefore 132 in the night schools and 171 in all other schools. Thus the average daily enrollment for any city or town or for the island is the average number of pupils belonging to all the schools in the group under consideration for 132 days in the night schools and for 171 days in all others.

Average daily attendance is the average number of pupils actually present each day the schools were in session, and is found by the same process as the average daily enrollment. An erroneous method, which makes a better showing, is that of finding the average daily attendance as well as the average daily enrollment in each school separately and adding the results. This method must be employed in finding the average attendance in groups of schools having a school year of different lengths; but when a school is open for only a part of the legal school year it should not have the same weight in computing average attendance and enrollment as a school that has been open the full time. For example, a school having an average enrollment of 56 is open for 100 days. It forms part of a system in which the length of the school year is 175 days. Its average daily enrollment is properly four-sevenths of 56, or 32; and it is so reckoned in the statistics for Porto Rico.

The term "school" is variously used to designate a building containing several rooms or even a group of buildings under one management, the pupils—whether one group or more than one—enrolled under one teacher, or a group of pupils in the care of a teacher. For the purposes of our statistics, however, "school" always means a group of pupils in the care of a teacher. It may be that a given group of pupils receives instructions from several teachers, as when the departmental system is used, but the group counts as one school.

In most school systems the number of schools is equal to the number of schoolrooms, except in the high schools, where classrooms are used for recitation, but not for study. In Porto Rico a large number of the teachers have one group of pupils in the morning and a different group in the afternoon. These teachers are considered as teaching two schools each, and such teacher is said to have "double enrollment." Thus it will be seen that the number of schools is far in excess of the number of teachers having charge of rooms. It may be well to note in passing that some of these teachers who have two day schools, or double enrollment, teach night schools also, thus making three schools taught by the same teacher. Thus it is evident that the number of schools is equal to the number of teachers having charge of rooms plus the number of double enrollments.

The term "schoolroom" is used to designate all the different day-school pupils under one teacher. The number of schoolrooms is equal to the number of teachers having charge of rooms, exclusive of principals and special teachers of music, drawing, agriculture, etc. A slight inaccuracy arises here owing to the fact that in a few towns where the number of schoolrooms is insufficient to accommodate all pupils who wish to attend even after establishing the double enrollment plan, two teachers with their respective pupils make use of the same schoolroom, thus forming what is called the "interlocking system." One teacher, for example, may have his classes from 8 to 10 and from 12.30 to 2.30, the other from 10.15 to 12.15 and from 2.45 to 4.45, and each of these teachers may have double enrollment, thus making four day schools taught in the same room. Thus, the number of school rooms is not quite equal to the number of teachers having charge of schools, but the difference is so slight as to be negligible.

The average daily enrollment, and not the total enrollment, is used as the basis in computing the percentage of attendance. The purpose is to show to what extent irregularities of attendance for trivial causes exist and not to take into consideration continuous absences of five days or more, which are likely to be caused by sickness or other justifiable reasons, or permanent withdrawals.

The ages of pupils are those given at the time of entering school.

#### COMMON SCHOOLS.

The common-school system consists of the rural and graded schools. The former are much more numerous and are on the whole perhaps more important. Most of them are housed in rented buildings, although The People of Porto Rico and the local school boards own at the present time 100 graded-school buildings, containing from 1 to 22 rooms each, and 218 rural schoolhouses, with from 1 to 3 rooms each. In all, there is a total of 747 modern hygienic classrooms which have been built since the establishment of the American school system on the island.

The rural buildings vary much in their style of architecture. Some are mere thatched-roof structures, perched on the edge of some mountain trail, while others are cement structures, supplied with all modern improvements. Every year the long, uncomfortable desks and benches are giving way to modern adjustable desks and chairs, and in the large majority of cases, the school surroundings are made attractive by school gardens, planted and cared for by the pupils. The schools as a rule bear the name of some Porto Rican or American patriot.

The graded schools, as is to be expected, have more and better accommodations than the rural, owing to their location and to the fact that there are a number of rooms in the same building.

The course of study for the graded schools covers an eight-year period, at the end of which, and after passing the standard examination set by the department, the successful candidates obtain the common-school diploma. The course of study for the rural covers a six-year period, and articulates with the graded-school system at the beginning of the fifth grade.

The average number of schools and teachers in the common-school system was about the same for each of the three terms of the school year, as shown in the following statement:

	Common schools.					Teachers.		
	Graded.		Rural.		Total.	In charge of rooms.	Without rooms.	Total.
	Rooms.	Double enrollment.	Rooms.	Double enrollment.				
First term.....	751	216	1,005	788	2,760	1,756	20	1,776
Second term.....	752	220	1,010	857	2,849	1,762	19	1,781
Third term.....	753	224	1,015	854	2,829	1,766	19	1,787
Average.....	752	227	1,010	823	2,812	1,762	19	1,781

The average number of graded school-rooms shows an increase of 60 over the preceding year, and the number of double enrollment in graded schools an increase of 24. The number of rural schoolrooms is 55 in excess of the previous year, and the number of rural schools on double enrollment has increased 130. The total number of common-school teachers was 1,781, as compared with 1,671 during the preceding year. Thus, although the number of teachers shows an increase of but 110, there was an increase

of 269 common schools. It is gratifying to note that the number of teachers has been more stable for the entire year than ever before. During the summer vacation the school boards were urged to have all schools opened the first day of the school year and were notified that if after 15 days' warning a school still remained unopened, the commissioner of education would appoint a teacher to fill the vacancy. As a result of the cooperation on the part of the school boards every school allotted to the different municipalities was opened before the end of the first school month.

At the close of the school year there were 1,776 teachers in the common schools, or 5 less than the average number for the year. Of these, 768 are found in the graded schools, and 1,008 in the rural. In the graded system there was a preponderance of female teachers, 509, as compared with 259 males, but in the rural schools the reverse was true, 510 males and 498 females. These proportions are in marked contrast when compared with the first few years after the American school system was established in Porto Rico, when the male teachers greatly outnumbered the female. However, the proportion of female teachers in the rural schools is gradually increasing, owing principally to better roads and facilities in the rural districts and to the increasing prosperity of the island, making the career of school-teachers less attractive to men. There are better returns for the men in mercantile and agricultural pursuits, which prove more attractive than the profession of teacher.

Another feature, which must prove an impediment to concentrated effort and to securing the best results in the graded schools, is that of combining two or more grades in charge of one teacher. The school law requires a minimum average attendance of 35 in each and every graded school, and as the number of pupils enrolled in any one of the upper grades in many municipalities is not sufficient to comply with the law, combinations are unavoidable. During the past year 32 eighth grades were taught separately, as compared with 43 in conjunction with other grades. For the seventh grade the figures were 26 and 63, and for the sixth grade 23 and 70. In very few instances, however, are more than two grades in the graded-school system combined, and as the enrollment in the upper grades is increasing rapidly, this necessary evil of combined grades will in the near future be reduced to a minimum.

#### ENROLLMENT

The number of pupils belonging to the schools of a given system can be measured by the total enrollment, the average daily enrollment, or by the actual enrollment at given dates. Of these figures, the least significant, and especially so when duplicates are not excluded, is the total enrollment. For the year just closed the total enrollment, exclusive of duplicates, in the graded schools was 51,809, and in the rural, 89,615, making a total for the common schools of 141,424. As compared with the previous year we find an increase of 5,636, or 12 per cent, in the graded, and 7,335, or 9 per cent, in the rural schools.

The average daily enrollment is a much more reliable test of a school system. This was 43,366 for the graded schools, and 70,218 for the rural, or a total of 113,584. These figures show an increase of 4,029, or 10 per cent, in the graded, and 6,040, or 9 per cent, in the rural schools, as compared with the previous year.

The average daily enrollment per school and per teacher was 44.3 and 57.7, respectively, for the graded schools, and for the rural 38.3 and 69.5, for the past school year. The average daily enrollment per school for the previous year was 45.4 for the graded schools and 40.3 in the rural. As stated before, the apparent difference between schools and teachers is due principally to schools with double enrollment counting as two schools in charge of one teacher.

#### ATTENDANCE.

The average daily attendance for all graded schools was 40,966, as compared with 36,800 for the previous year, an increase of 11 per cent. For the rural schools the figures were 64,077, as compared with 58,348 for 1910-11, an increase of 10 per cent. The average daily attendance per school and teacher in the graded system were 41.8 and 54.5, respectively, and for the rural schools 35.0 and 63.4.

Comparing the average daily enrollment with the average daily attendance we find that the percentage of attendance in the graded schools was 94.5 as compared with 93.5 the preceding year, and 91.3 in the rural schools, as against 91.2 for the previous year.



## AGE AND SEX OF PUPILS.

In the graded schools the boys are on the whole more numerous than the girls. This preponderance of boys is to be found at the ages of 7, 8, 10, 11, 12, 13, 14, and 18; the number of girls being in excess of the number of boys at the ages of 5, 6, 9, 15, 16, and 17.

The following table shows the distribution by age and sex of the pupils enrolled in the graded schools on March 1, 1911, as compared with March 1, 1912:

Agea.	1911				1912			
	Boys.	Girls.	Total.	Per cent at each age.	Boys.	Girls.	Total.	Per cent at each age.
Over 18 years.....	49	47	96	0.2	37	37	74	0.1
18 years.....	108	124	232	.5	134	126	260	.5
17 years.....	297	334	631	1.5	311	360	671	1.5
16 years.....	553	659	1,212	2.9	661	743	1,404	2.1
15 years.....	1,060	1,121	2,181	5.3	1,137	1,164	2,301	5.1
14 years.....	1,628	1,571	3,199	7.7	1,782	1,644	3,426	7.6
13 years.....	2,222	2,123	4,345	10.5	2,390	2,366	4,756	10.6
12 years.....	2,854	2,583	5,437	13.1	2,862	2,679	5,541	12.8
11 years.....	2,254	2,112	4,366	10.5	2,247	2,124	4,371	9.7
10 years.....	2,572	2,366	4,938	11.9	2,671	2,299	4,970	11.7
9 years.....	1,965	1,960	3,925	9.5	2,268	2,293	4,561	10.1
8 years.....	2,318	2,244	4,562	11.0	2,569	2,293	4,862	10.8
7 years.....	1,812	1,670	3,482	8.4	1,974	1,791	3,765	8.4
6 years.....	1,092	1,052	2,144	5.2	1,209	1,280	2,489	5.5
5 years.....	365	376	741	1.8	573	578	1,151	2.5
Total.....	21,149	20,342	41,491	100.0	22,825	22,067	44,892	100.0

In the rural schools we find that the number of boys as compared with the number of girls is greater than was found to be the case in the graded schools, as a preponderance of boys is to be found at all ages from 5 to 18, inclusive. This fact is brought out in the following table:

Agea.	1911				1912			
	Boys.	Girls.	Total.	Per cent at each age.	Boys.	Girls.	Total.	Per cent at each age.
Over 18 years.....	26	10	36	0.1	19	15	34	0.1
18 years.....	66	25	91	.1	71	24	95	.1
17 years.....	104	51	155	.2	129	76	205	.3
16 years.....	316	193	509	.7	431	213	644	.8
15 years.....	1,037	593	1,630	2.3	1,201	637	1,838	2.3
14 years.....	2,275	1,288	3,563	4.9	2,393	1,378	3,771	4.8
13 years.....	3,471	2,250	5,721	8.0	3,920	2,521	6,441	8.2
12 years.....	5,973	3,932	9,905	13.8	5,996	4,084	10,080	12.8
11 years.....	4,567	3,230	7,797	10.9	4,452	3,194	7,646	9.7
10 years.....	5,698	4,126	9,824	13.7	6,077	4,793	10,870	13.8
9 years.....	4,264	3,243	7,507	10.5	5,061	3,799	8,860	11.2
8 years.....	5,533	3,825	9,358	13.1	7,432	4,644	12,076	14.1
7 years.....	4,868	3,628	8,496	11.9	6,371	4,117	10,488	12.0
6 years.....	2,935	2,435	5,370	7.5	3,379	2,496	5,875	7.4
5 years.....	879	793	1,672	2.3	1,066	857	1,923	2.4
Total.....	42,012	29,622	71,634	100.0	45,978	32,818	78,796	100.0

## NUMBER OF YEARS IN SCHOOL.

If all the children passed from one grade to another regularly at the end of each school year, the number of children in each grade would indicate the length of time they have been in school, but owing to many different causes children often fail to advance as rapidly as the school plan proposes and it is important to determine to what extent such retardation exists. The following tables show to what extent some pupils have been retarded and also to what extent some of them have been able to progress more rapidly than one grade per year.

*Distribution by years in school and grades, of pupils enrolled March 1, 1912.*

## A. GRADED SCHOOLS.

Grades.	Number of years in school.										More than 10.	Total.
	1	2	3	4	5	6	7	8	9	10		
8.....			1	8	40	153	585	784	125	7	3	1,706
7.....			1	12	122	452	1,058	223	19	.....	1	1,888
6.....			14	95	587	1,390	512	72	7	2	.....	2,679
5.....		3	44	498	2,216	856	76	5	1	.....	.....	3,699
4.....		18	437	2,786	1,329	201	25	2	2	.....	2	4,703
3.....	12	316	3,501	2,469	355	26	3	.....	.....	.....	.....	6,682
2.....	94	4,474	3,875	705	74	6	.....	.....	.....	.....	.....	9,228
1.....	8,771	4,788	704	60	4	.....	.....	.....	.....	.....	.....	14,377
Total.....	8,878	9,899	8,577	6,633	4,627	3,084	2,289	1,086	154	9	6	44,912

## B. RURAL SCHOOLS.

6.....				2	27	24	12	1	5	.....	.....	71
5.....		1	6	82	312	101	13	3	1	1	.....	530
4.....	6	16	417	2,073	964	185	41	4	2	.....	.....	3,708
3.....	28	694	5,022	3,390	653	113	24	1	1	.....	.....	9,956
2.....	576	8,223	6,118	1,533	170	48	7	1	.....	.....	.....	16,676
1.....	28,678	15,724	2,975	411	60	7	.....	.....	.....	.....	.....	47,855
Total.....	29,288	24,658	14,538	7,501	2,216	478	97	10	9	1	.....	78,796

*Advance of pupils enrolled Mar. 1, 1912, as shown by the number of years in school.*

## A. GRADED SCHOOLS.

Grades.	Number of pupils that have spent—				Total.	Percentages.			
	Less than 1 year in each grade.	1 year in each grade.	More than 1 year in each grade.			Less than 1 year in each grade.	1 year in each grade.	More than 1 year in each grade.	
			1 year behind.	2 years or more.				1 year behind.	2 years or more.
8.....	787	784	126	10	1,706	46.1	46.0	7.3	0.6
7.....	587	1,058	223	20	1,888	32.1	56.0	11.8	1.1
6.....	696	1,390	512	81	2,679	26.0	51.9	19.1	3.0
5.....	545	2,216	856	82	3,699	14.8	59.9	23.1	2.2
4.....	456	2,786	1,229	232	4,703	9.7	59.3	26.1	4.9
3.....	328	3,501	2,469	384	6,682	4.9	52.4	37.0	5.7
2.....	94	4,474	3,875	785	9,228	1.0	48.5	42.0	8.5
1.....	.....	8,771	4,788	768	14,327	.....	61.2	33.4	5.4
Total.....	3,493	24,980	14,077	2,362	44,912	7.8	55.6	31.3	5.3

## B. RURAL SCHOOLS.

6.....	29	24	12	6	71	40.8	33.8	16.9	8.5
5.....	99	312	101	18	530	18.7	58.9	19.0	3.4
4.....	439	2,073	964	232	3,708	11.8	58.9	26.0	6.3
3.....	722	5,022	3,390	622	9,956	7.3	50.4	34.0	8.2
2.....	576	8,223	6,118	1,759	16,676	3.5	49.3	36.7	10.5
1.....	.....	28,678	15,724	3,453	47,855	.....	60.0	32.8	7.2
Total.....	1,865	44,332	26,309	6,290	78,796	2.4	56.2	33.4	8.0

*Advance of pupils enrolled Mar. 1, 1911, as shown by the number of years in school.*

#### A. GRADED SCHOOLS.

Grades.	Number of pupils that have spent—				Total.	Percentages.			
	Less than 1 year in each grade.	1 year in each grade.	More than 1 year in each grade.			Less than 1 year in each grade.	1 year in each grade.	More than 1 year in each grade.	
			1 year behind.	2 years or more.				1 year behind.	2 years or more.
8.....	583	585	112	25	1,305	44.7	44.8	8.6	1.9
7.....	517	889	235	30	1,671	30.9	53.2	14.1	1.8
6.....	514	1,304	444	56	2,318	22.2	56.3	19.1	2.4
5.....	602	1,872	858	111	3,443	17.5	54.4	24.9	3.2
4.....	485	2,561	1,162	219	4,427	11.0	57.9	26.2	4.9
3.....	314	3,279	2,007	397	6,087	5.2	53.9	34.4	6.5
2.....	150	4,131	3,836	773	8,890	1.7	46.5	43.1	8.7
1.....	.....	7,676	4,980	794	13,350	.....	56.8	37.3	5.9
Total.....	3,165	22,197	13,724	2,405	41,491	7.6	53.5	33.1	5.8

#### B. RURAL SCHOOLS.

6.....	.....	11	5	1	17	.....	64.7	29.4	5.9
5.....	94	242	84	30	450	20.9	53.8	18.7	6.6
4.....	369	1,374	798	219	2,760	12.4	50.0	28.6	8.0
3.....	652	4,397	2,614	877	8,540	7.6	51.5	30.6	10.3
2.....	626	7,530	5,646	1,496	15,318	4.1	49.3	36.8	9.8
1.....	.....	28,462	13,512	2,585	44,559	.....	63.9	30.3	5.8
Total.....	1,741	42,036	23,649	5,208	71,634	2.4	58.7	31.6	7.3

#### GRADES AND AGES OF PUPILS.

The ages of the pupils are an important factor in the school problem, and especially so when taken in connection with the grades or the stage of advancement in their school work. In the graded schools the maximum number of pupils during the past year was found at the age of 12 years, although all ages are quite generally represented as is shown by the following tables:

*Distribution by grades and ages of pupils enrolled in the graded schools on Mar. 1, 1912.*

Ages.	Grades.								Total.
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	Seventh.	Eighth.	
Over 18 years.....	.....	.....	.....	2	2	2	9	59	74
18 years.....	3	1	.....	5	9	24	47	171	260
17 years.....	.....	.....	4	8	29	79	207	344	671
16 years.....	3	5	18	48	147	301	396	457	1,404
15 years.....	20	26	108	218	483	598	473	363	2,301
14 years.....	55	186	374	647	814	707	438	306	4,426
13 years.....	181	557	972	1,080	1,043	619	237	61	4,756
12 years.....	565	1,371	1,430	1,301	727	265	68	14	5,741
11 years.....	568	1,232	1,341	814	342	72	12	1	4,371
10 years.....	1,499	1,925	1,279	469	91	10	1	.....	5,274
9 years.....	1,784	1,702	796	181	12	2	.....	.....	4,367
8 years.....	2,943	1,560	325	24	.....	.....	.....	.....	4,852
7 years.....	3,142	590	.....	.....	.....	.....	.....	.....	3,735
6 years.....	2,413	74	2	.....	.....	.....	.....	.....	2,489
5 years.....	1,151	.....	.....	.....	.....	.....	.....	.....	1,151
Total.....	14,327	9,228	6,682	4,703	3,699	2,679	1,888	1,708	44,912

From the above table it will be seen that a little more than 51 per cent of 44,812 pupils enrolled in the graded schools on March 1, 1912, were above 10 years of age as compared with more than 52 per cent the year previous. This percentage is much higher than that for many cities of the United States and is due principally to the fact that many pupils were obliged to enter school here later on account of the lack of school facilities in former years. Although the number of common schools has increased rapidly during the past five years—in fact, the number has been more than doubled—there are still many children who are unable to enter school for lack of accommodations. We are pleased to note, however, that the average age of pupils in the different grades is decreasing year by year, as shown in the following statement, which gives the average age of pupils in each grade for the school years 1906–1912, inclusive:

*Average age of pupils in each grade on March 1 for each of the years 1906–1912, inclusive.*

Grades.	1906	1907	1908	1909	1910	1911	1912
Eighth.....	15.8	15.7	15.6	15.8	16.0	16.0	15.87
Seventh.....	14.7	14.8	14.8	15.2	15.1	15.1	14.80
Sixth.....	14.2	14.4	14.3	14.4	14.3	14.2	14.04
Fifth.....	13.3	13.4	13.5	13.5	13.4	13.2	13.17
Fourth.....	12.4	12.6	12.6	12.6	12.5	12.4	12.19
Third.....	11.5	11.5	11.5	11.6	11.5	11.3	11.15
Second.....	10.4	10.4	10.3	10.5	10.2	10.1	9.93
First.....	8.7	8.8	8.8	8.6	8.3	8.1	7.87
Total.....	10.86	10.8	10.9	10.97	10.93	10.74	10.70

In the rural schools the largest number of pupils is found at the age of 8 years, although the number 10 and 12 years of age is almost as large. Whenever a new school is established in a barrio that has never had school facilities we must naturally expect to find the average age of the pupils higher than in a rural district where a school has been functioning for a series of years. However, the percentage of pupils over 10 years of age in the rural schools, 39.08, is less than the number of pupils over 10 years of age in the graded schools.

*Distribution, by grades and ages, of pupils enrolled in rural schools March 1, 1912.*

Ages.	Grades.						Total.
	First.	Second.	Third.	Fourth.	Fifth.	Sixth.	
Over 18 years.....	4	9	15	6	.....	.....	34
18 years.....	16	24	25	20	5	4	95
17 years.....	30	43	71	45	7	4	205
16 years.....	75	158	219	148	37	14	644
15 years.....	212	417	625	390	90	14	1,588
14 years.....	688	1,001	1,163	738	160	21	3,771
13 years.....	1,509	1,967	1,993	959	123	10	6,441
12 years.....	3,516	3,179	2,599	808	89	2	10,090
11 years.....	3,075	2,624	1,534	262	19	2	7,646
10 years.....	6,370	3,076	1,308	207	9	.....	10,870
9 years.....	6,184	2,148	471	57	.....	.....	8,830
8 years.....	9,342	1,560	176	8	.....	.....	11,076
7 years.....	9,060	423	15	.....	.....	.....	9,488
6 years.....	5,806	59	.....	.....	.....	.....	5,865
5 years.....	1,808	5	.....	.....	.....	.....	1,913
Total.....	47,855	16,676	9,966	3,708	530	71	78,696

The average age of the pupils in each grade of the rural schools shows a slight decrease from year to year during the past few years, as is apparent from the following table:

*Average of pupils in each grade.*

Grades.	1906	1907	1908	1909	1910	1911	1912
Sixth.....						14.8	14.70
Fifth.....					14.0	13.5	13.67
Fourth.....				12.6	13.1	12.9	12.98
Third.....	12.5	12.4	12.4	12.4	12.1	12.2	12.14
Second.....	11.2	11.3	11.3	11.2	11.1	11.1	10.94
First.....	9.1	9.1	9.1	9.1	8.9	8.8	8.64
Total.....	10.0	9.9	9.9	9.9	9.9	9.87	9.98

*Distribution, by grades and sex, of pupils enrolled March 1, 1912, as compared with March 1, 1911.*

## A. GRADED SCHOOLS.

Grades.	1911			Per cent in each grade.	1912			Per cent in each grade.
	Boys.	Girls.	Total.		Boys.	Girls.	Total.	
Eighth.....	617	688	1,305	3.1	764	942	1,706	3.8
Seventh.....	741	930	1,671	4.0	896	992	1,888	4.2
Sixth.....	1,142	1,176	2,318	5.6	1,374	1,305	2,679	6.0
Fifth.....	1,767	1,676	3,443	8.3	1,883	1,816	3,699	8.2
Fourth.....	2,289	2,138	4,427	10.7	2,346	2,357	4,703	10.5
Third.....	3,089	2,998	6,087	14.7	3,337	3,345	6,682	14.9
Second.....	4,519	4,371	8,890	21.4	4,722	4,505	9,228	20.5
First.....	6,985	6,365	13,350	32.2	7,503	6,824	14,327	31.9
Total.....	21,149	20,342	41,491	100.0	22,825	22,087	44,912	100.0

## B. RURAL SCHOOLS.

Sixth.....	15	2	17	.....	48	23	71	0.1
Fifth.....	294	155	450	0.6	338	192	530	0.7
Fourth.....	1,719	1,031	2,750	3.9	2,307	1,401	3,708	4.7
Third.....	5,346	3,194	8,540	11.9	6,061	3,895	9,956	12.6
Second.....	8,971	6,247	15,218	21.4	9,705	6,971	16,676	21.2
First.....	25,067	18,862	44,569	62.2	27,519	20,536	47,955	60.7
Total.....	42,012	29,622	71,634	100.0	45,978	32,818	78,796	100.0

## FLEXIBLE PROMOTIONS.

In harmony with the best school systems of the States, considerable attention has been given during the past school years to the matter of retardation of pupils. The percentages of promotions from grade to grade, while comparing favorably with those of large cities, have not been entirely satisfactory. An attempt to better conditions has been made by the introduction of the plan known as "flexible promotions," already tried out in many schools of the States. After a trial of over two years the consensus of opinion on the part of the supervising principals is in favor of the plan as a practical solution of the problem.

The plan pursued was, in brief, as follows: (1) The course of study was divided into six groups of six weeks each for both rural and graded schools. This gave a short portion to be covered at a time, the exact amount being indicated by pages of text-books and by detailed instructions to the teachers.

(2) The pupils of each grade were rearranged so that in each of the two groups in a given room were found only those of practically the same degree of advancement. This regrouping was at first only tentative, but in the course of time has become fairly stable. Each group was allowed to advance at the rate at which it could do the work well. Thus the groups gradually drew apart, the stronger covering the work outlined in a given six weeks' period in less time, the slower requiring more, but all working at their best. It was not intended that the interval between them should be or remain uniform, although this has in many cases resulted.

(3) At the end of each six weeks those who had shown marked ability, usually only a few at a time, were advanced to the next higher group, while those who could not

keep the pace set by the rest of the class were demoted to the next lower, reviewing the work in which they were weak. As far as possible the pupils did not change teacher or rooms, as it was recognized that such changes would not prove to be for the best interest of young children. Not more than two groups were allowed in a room. In this way a constant regrading was carried on during the year, the aim being always to place pupils in the group where they could do the best work, all at the same rate.

The plan has not been found feasible above the fourth grade except in a few of the larger towns, owing to the fact that as a rule the higher grades have not enough students to form more than one group. But it is in the lower grades where the greatest retardation has occurred in the past and where the largest number of pupils are found who are behind the normal advancement.

The plan has now been in operation for over three years, and we are in a better position to determine its efficiency.

The following table shows the advancement of the pupils in the graded schools:

Grades.	Pupils advanced more than 1 year.	Per cent.	Pupils advanced 1 year.	Per cent.	Pupils advanced less than 1 year.	Per cent.	Pupils not advanced who entered 6 or more weeks late.	Per cent.	Per cent promoted.	Per cent not promoted who were 1 full year in grade.	Total of pupils advanced.
First.....	1,228	7.6	7,264	44.8	7,695	47.6	3,379	20.9	52.4	26.7	8,892
Second.....	892	9.0	6,033	61.6	2,871	29.4	908	9.3	70.6	20.1	6,915
Third.....	869	13.6	4,143	65.0	1,266	21.4	490	7.5	78.6	13.9	5,012
Fourth.....	475	10.5	3,066	67.8	981	21.7	311	6.9	78.3	14.8	3,541
Fifth.....	289	8.6	2,412	72.2	642	19.2	149	4.5	80.8	14.7	2,701
Sixth.....	371	17.2	1,533	71.2	249	11.6	42	1.9	88.4	9.7	1,904
Seventh.....	254	15.1	1,212	72.3	211	12.6	50	3.0	87.4	9.6	1,466
Eighth.....	134	8.5	1,214	76.9	230	14.6	115	7.3	85.4	7.3	1,348
Total.....	4,512	9.99	26,877	58.89	14,245	31.22	5,484	11.91	68.78	19.31	31,386

A study of the table shows that the greatest retardation is in the primary grades, 52.4 per cent having been promoted in the first grade, 70.6 in the second, 78.6 in the third, 78.3 in the fourth. While this same condition is found to exist in the schools of all countries, it is none the less to be regretted in the light of the fact that the largest enrollment is also to be found in these grades. Deducting those, however, who entered schools six weeks or more after the opening of the school year—that is, too late to expect them to finish the work of the grade within the year—the figures become 66.3 per cent for the first grade, 77.9 for the second, 85 for the third, and 84.1 for the fourth, an excellent showing. Of the 14,245 pupils who were not advanced over a year's work, the larger part have probably covered two-thirds of the course and will begin next year at this point instead of being obliged to lose a whole year, as formerly. The column "Pupils advanced more than one year" brings out the best feature of the plan, as those pupils who are naturally quicker than their fellows have been advanced more rapidly to a group of the same ability. The figures for last year were 3,879, making a total of 8,391 pupils who have covered more work than that outlined for a given grade in one year's time. It is to be expected that as this grading becomes more thoroughly worked out these numbers will decrease, as it is intended that only those of exceptional ability should do more than a year's work. The department does not approve of pupils being hurried over the work simply to make a showing. At present there are to be seen in nearly every room a number of pupils who, judging by their ages and growth, have been unduly retarded in the past. This is also indicated by the fact that the average age of the pupils in each grade is higher in Porto Rico than in the United States. These retarded pupils will influence the figures for some years to come. The smaller figures in the upper grades are due not only to the fewer pupils enrolled in these grades, but also to the fact that the weaker drop out of the schools earlier and the increased difficulty of the work results in less rapid advancement. The increase in these figures for the grammar grades, 1,048 in 1911-12 as compared with 685 in 1910-11, shows that the retarding has not as yet been ended.

The table giving the "Average age of pupils in each grade, 1906-1912, inclusive," shows a slight increase in the three upper grades. This would seem to indicate that the older pupils are remaining in school to a greater extent, while the decrease in the five lower grades is a hopeful sign that the overgrown retarded pupil has been placed

where he can do the work with others of the same age. The same result is found in comparing the table of "Distribution by years in school and grades" with previous years where the decrease of retarded pupils is noticeable.

The flexible system of promotions has resulted, as was expected in the larger towns where the number of pupils warranted the continuance of the group system, in pupils finishing the eighth grade during the year. This past year special examinations for the common-school diploma were held in San Juan and Ponce and classes of high-school work begun with those who passed the examinations. This will result in time in midyear classes in the high schools. On the whole, this is a condition to be desired, as it will introduce the flexible promotion plan in a modified form into the lower grades of the high schools. As it is now, with the few high schools in the island, there are a considerable number entering from other towns where the work in English has not been so strenuous, and who, in consequence, are unable to do the work as well as they should. If they can drop back into a class only a half year behind them and review their work, the results will be beneficial both to themselves and to the rest of the class, who will be able to do more and better work if not obliged to wait for those who are unable to keep up. As many of these are the pick of the towns from which they come, they prove in the end to be among the best in the school.

#### INSTRUCTION IN ENGLISH.

During the school year 1905-6 but 74 graded schools on the island were taught entirely in the English language. Since then there has been a great deal of enthusiasm on the part of pupil, parent, and teacher to have the schools conducted entirely in English whenever possible. In accordance with this desire the number of schools in which English was used as a medium of instruction has increased year by year. The following statement shows the progress made along this line in the graded schools of the island from the year 1905-6 down to the present time:

Graded schools taught.	1905-6	1906-7	1907-8	1908-9	1909-10	1910-11	1911-12
Wholly in English.....	74	202	288	442	607	659	759.0
Partly in English.....	86	187	128	64	67	31	11.0
English as special subject, or no English.....	340	113	147	157	4	5	1.0
Total graded schools.....	500	502	563	663	678	695	771.0
Percentage wholly in English.....	15	40	51	67	90	95	98.4
Percentage partly in English.....	17	37	23	10	10	5	1.6

Rural schools conducted wholly in English were unknown before the year 1909-10, when 124 rural teachers asked for and obtained permission from their supervising principals to teach all the subjects in their schools in that language. The results were so satisfactory that the number of rural schools thus taught was increased to 154 during the school year 1910-11, and during the past school year to 188, an increase of 17 per cent. In 238 rural schools some subjects other than English were taught in that language and in but one-half of 1 per cent of the total number of rural schools was no English whatever taught.

This development in the instruction in English is demonstrated in the following table covering the past four years:

Rural schools taught.	1908-9	Per cent.	1909-10	Per cent.	1910-11	Per cent.	1911-12	Per cent.
Wholly in English.....			124	15	154	16	188	17.0
Partly in English.....	183	20	209	22	222	23	238	22.0
English as special subject.....	152	17	597	64	564	59	685	60.5
No English.....	571	63	4	1	13	2	6	.5

During the coming school year more than 645 Porto Rican teachers will impart instruction in the various branches of the graded school curriculum entirely in English as compared with 550 during the past year.

There is not to be found at the present time a single graded school on the island in which no English is taught. There are kindergartens where the child begins his instruction in English and he can continue the same until he graduates from one of the high schools, the insular normal school or the University of Porto Rico. It is

gratifying to note that this change in the language used as a medium of instruction has been brought about principally by the Porto Rican teachers who have qualified themselves to teach in English by attending the summer schools and the regular classes in this subject offered by the department during the school year.

The progress of the English work for 1911-12, as compared with 1910-11, is shown in the following statement:

*Table showing to what extent schools are taught in English.*

	Rooms taught wholly in English.		Rooms taught partly in English.		English as special subject only.		No English.	
	1911	1912	1911	1912	1911	1912	1911	1912
By teachers of English .....	129	114	2	.....	2	.....	.....	.....
By English graded teachers .....	449	593	13	1	.....	.....	.....	.....
By graded teachers .....	81	52	16	10	3	1	.....	.....
Total of graded rooms .....	659	759	31	11	5	1	.....	.....
Per cent of graded rooms .....	94.8	98.4	4.5	1.4	0.7	0.2	.....	.....
Rural rooms .....	154	188	222	238	564	665	13	6
Per cent of rural rooms .....	16.2	17.1	23.3	21.7	59.2	60.6	1.3	0.6
All common schools .....	813	947	253	249	569	666	13	6
Per cent of common schools .....	49.3	50.7	15.4	13.3	34.5	35.6	0.8	0.4

Since schools and grades are not identical, a further analysis of the use of English as a medium of instruction in the grades is interesting, and for the purpose of demonstrating the remarkable progress made the table immediately following, taken from the commissioner's report for the year 1906-7, is inserted. The second table gives the number of grades taught in English for the past school year.

*English teaching in grades of graded schools, first term, 1906-7.*

	Grades.								Total.
	Eighth.	Seventh.	Sixth.	Fifth.	Fourth.	Third.	Second.	First.	
All in English by American teachers .....	9	12	17	20	13	13	10	1	95
Partly in English by American teachers .....	1	3	4	8	12	13	9	2	52
All in English by Porto Rican teachers .....	.....	4	4	6	23	32	58	11	138
Partly in English by Porto Rican teachers .....	1	8	15	23	28	34	47	54	210
As a special subject by American teachers .....	4	4	6	9	16	21	20	24	104
Grades in which no English is taught .....	.....	.....	.....	.....	1	1	2	71	75
Total .....	15	31	46	66	93	114	146	163	674



*English taught by grades of graded schools, including urban rural, 1911-12.*

	Grades.							Total.
	Eighth.	Seventh.	Sixth.	Fifth.	Fourth.	Third.	Second.	First.
Grades taught wholly in English:								
By teachers of English.....	62	54	32	17	9	2		
By English graded teachers.....	10	28	60	83	112	132	160	196
By graded teachers.....		3	5	7	8	15	16	14
By urban rural teachers.....			2	5	11	20	25	63
Total.....								1,151
Grades taught partly in English:								
By teachers of English.....				1	1			
By English graded teachers.....							2	
By graded teachers.....				1	2	5	1	
By urban rural teachers.....				2	1	2	1	1
Total.....								20
English taught as special subject by teachers of English.....				1	1			
Total.....	72	85	99	117	145	176	206	274
								1,173

During the year 1906-7, 233 grades in the urban schools were taught entirely in English by Porto Rican and American teachers, as compared with 1,151 during 1911-12. This increase of more than 394 per cent in the number of grades conducted entirely in English in the past six years speaks for itself. The table below shows the percentage of different grades as regards instruction in English:

Grades.	Grade teaching in English by—				Special teaching.		No English.	
	American teachers.		Porto Rican teachers.					
	1907	1912	1907	1912	1907	1912	1907	1912
Eighth.....	66.6	86.1	6.7	13.9	26.7			
Seventh.....	48.4	63.5	38.7	36.5	12.9			
Sixth.....	45.7	32.3	41.3	67.7	13.0			
Fifth.....	42.4	15.4	43.9	83.8	13.7	0.4		
Fourth.....	26.9	6.9	54.9	92.4	17.2	0.7	1.0	
Third.....	22.8	1.1	57.9	98.9	18.4		0.9	
Second.....	13.0		71.9	100.0	13.7		1.4	
First.....	1.8		39.9	100.0	14.7		43.6	

Without doubt the teaching of English is far more effective in the lower grades by the Porto Rican teachers authorized to teach in that language than by American teachers. They give better results in the higher grades. We expect gradually to increase the number of Porto Rican teachers in charge of the upper grades as greater efficiency in the use of the English language is acquired.

## TEACHERS' LICENSES.

During the school year 2,474 persons held licenses issued by the department of education, as follows:

Principals.....	189
English graded.....	827
Graded.....	285
Rural.....	993
English.....	117
Special.....	63

Included in the above are the licenses to the students who were graduated from the normal department of the University of Porto Rico at the close of the school year, and those issued after the examinations held in the month of April. A small percentage of the persons who received licenses at that time secured schools for the remainder of the school year, but the greater number of them, as well as all those who received their licenses at the close of the normal session, do not properly belong to the teaching force of this year, although they have been included in all of the tables. This makes the number counted as "not teaching" considerably in excess of the actual number holding licenses throughout the year and not engaged in public-school work.

There are no actual figures at hand to show the number of persons holding licenses and not engaged in some kind of educational work, either as teachers in private schools or students in the normal school or in the United States, but the number is relatively small. Some have entered other departments of the Government or taken up other lines of work, while a few have been under suspension for various reasons.

Licenses are issued in the first instance for one year and the teachers must be assigned to the third salary class, except in the case of students who have finished one of the courses of the normal school. These receive their licenses for two years and are placed immediately in the second salary class. A license can not be renewed for one of the longer periods until the teacher has had a renewal for the preceding shorter period, and only upon satisfactory evidence of successful experience. A teacher may not be advanced to the second salary class until he has taught three years, and not to the first until he has taught five years and be the possessor of the life diploma. To secure the life diploma an experience of five years is necessary and an examination in certain special subjects, in addition to the subjects required for the original license, except in the case of normal graduates of the four-year course, who have had two years' successful experience.

Beginning with June of this year a regulation of the department was put into effect which provides that the licenses of those persons who fail to teach for two successive years in the public schools of Porto Rico, or in some school under the direct supervision of the officials of the department, will not be renewed except by examination. Under this rule 64 licenses lapsed, and all persons, whether candidates for renewal of licenses or applicants for the examinations for teachers' licenses, have been required to present medical certificates. The school laws state that "licenses to teach as rural, graded, principal, or special teachers shall be granted only to persons of sound physical health." These certificates must be filled out by a regularly licensed physician in good standing, the blanks used for this purpose being furnished by the department of education.

The following tables show the origin and terms of the licenses, the salary classes, and the distribution of teachers:

	Terms of licenses.				Salary classes.			
	1 year.	2 years.	3 years.	5 years.	First class.	Second class.	Third class.	Special salary.
Principal.....	41	53	69	26	19	107	21	142
English graded.....	106	352	307	62	.....	601	224	12
Graded.....	113	107	63	2	.....	144	136	15
Rural.....	495	398	84	16	.....	506	487	.....
English.....	<sup>1</sup> 117	.....	.....	.....	.....	.....	.....	<sup>1</sup> 117
Special <sup>2</sup> .....	<sup>2</sup> 63	.....	.....	.....	.....	.....	.....	<sup>2</sup> 63
Total.....	935	910	523	106	19	1,358	868	229

<sup>1</sup> Supervising principals, special and English teachers receive special salaries.

<sup>2</sup> Licenses of English and special teachers are issued for 1 year only.

<sup>3</sup> High and continuation school teachers, music, drawing, etc.

*Origin of licenses.*

	Renewals.	Examination.	Diploma from normal department, university of Porto Rico.	Diploma from normal school, United States.	Diploma from college or university, United States.	Diploma from high school, United States.	State, county, or city certificate, United States.	Previous issue.
Principal.....	139	7	11	2	1			29
English graded.....	234	111	72					410
Graded.....	113	75	21					76
Rural.....	538	180	10					265
English.....	64	5		9	17	10	12	
Special.....	23			12	21		7	
Total.....	1,111	378	114	23	39	10	19	790

*Distribution of teachers.*

	Supervising principal.	Principal.	English graded.	Graded.	Rural.	English.	Special.	Not teaching.
Principal.....	41	11	79	14	11	5	7	21
English graded.....			539	27	79		2	180
Graded.....				35	182		5	63
Rural.....					801			192
English.....						117		
Special.....							63	
Total.....	41	11	618	76	1,073	122	77	456

All the public-school teachers in actual service are classified each year according to the proficiency of their work, as shown by the reports submitted by the supervisory force. These classes are known as A, B, and C. Included in the first are all teachers whose work is eminently successful; in the second, those whose work is successful but not of as high a grade as that of class A; and in the third, those whose work is unsatisfactory. A teacher who is classified as C is not approved for any school until the available supply of teachers in classes A and B is exhausted, and any teacher who is classified as C for two successive years is not entitled to a renewal of his license except by examination in all subjects. Under this rule the licenses of seven teachers were not renewed. There are at present 455 teachers in class A, 1,208 in class B, and 45 in class C.

**SCHOOL CELEBRATIONS.**

The celebration of legal and school holidays in the public schools of the island has been noteworthy, not only in the number and brilliancy of the festivities, but for the interest and enthusiasm shown on the part of teachers, pupils, and parents. A school celebration has a double value in connection with the progress of education; it not only impresses on the children the ideas and ideals of the day itself, and stimulates them to greater effort, but also affords the parents an opportunity to get in closer touch with the school at a time when such visits will not interfere with the daily work. It has been difficult to attract the parents to the schools owing to the fact that the major part of the recitations are conducted in a tongue unfamiliar to the most of them. An effort has been made to make the school celebrations as democratic as possible, with the result that more people are taking an interest in the work.

Thanksgiving Day, Arbor Day, which is celebrated the Friday following Thanksgiving Day; Washington's Birthday, Abolition Day (Mar. 22), and Decoration Day are the recognized school holidays, and these have been supplemented by Lincoln's Birthday, Parents' Day, and Christmas celebrations in many of the districts. For the celebration of Arbor Day a special manual of exercises was published by the department as a guide to the supervising principals and teachers in the different districts, and instructions dealing with the proper way to plant and transplant trees and shrubs were issued. The Agricultural College and the Experiment Station cooperated in the

movement by supplying on request young trees and shrubs, particularly adapted to conditions obtaining in Porto Rico.

As a result of the movement to have as many trees and shrubs as possible planted by the children of the island on this day, the reports from the different districts show that 16,744 trees and 15,828 shrubs and flowers were planted on the school grounds, while 5,289 trees and shrubs were planted by the pupils at their respective homes. The inherent value of this work in fostering a love for the beautiful and in creating attractive surroundings, as well as arousing in the children the feeling of true patriotism by all working for the common good, can not be estimated. The pupils have taken a deep interest in protecting the trees and shrubs planted, and in many districts prizes have been given for the best results at the end of a stated time. In every school in each municipality of the island exercises were held, consisting of speeches by prominent citizens, recitations by the children, band concerts, parades, and the actual planting of trees and shrubs. Letters to the school children from the governor and the commissioner of education were read as a part of each program.

Washington holds a high place in the hearts of the Porto Rican children, and in 31 districts of the island special exercises were held in honor of the "Father of his country."

Abolition Day, March 22, was fittingly celebrated in many districts of the island, while 14 gave the occasion special prominence.

Special exercises were held on Decoration Day in 12 districts, on Lincoln's Birthday in 4, and Christmas was fittingly observed in 9.

Parents' Days have been celebrated with more enthusiasm this year than last, and 18 districts have devoted one or more days to the parents, giving them an opportunity to hear the recitations and to see the exhibits of work done by the children. One of the third-class districts reports an attendance of 1,217 parents and friends in the different schools on Parents' Day. In many of the districts evening exercises were held for the purpose of accommodating those who could not attend during school hours, and in some the exhibition of work was displayed in a public place for an extended period for the purpose of arousing interest on the part of those who were reluctant about visiting the schools. The parents and teachers are getting closer to each other, which is a very hopeful sign.

#### TEACHERS' CONFERENCES.

Although no definite orders have been given the field force regarding the number of teachers' conferences to be held during the year, it is generally understood that three general conferences a year, at which all the teachers of the district are to be in attendance, one in each school term, are a requisite for the best interests of the teaching force and the general progress of the district.

During the school year a total of 185 conferences have been held in the school districts of the island, with an average attendance of 136 teachers. The average number of conferences per district was 4.5 and the average number of teachers in attendance at each was 33.1. These general conferences have been conducted on the whole with a definite aim in mind, and the programs have been so arranged as to allow ample time for informal discussions on the different subjects submitted. Pedantic discussions where no definite conclusions could be reached were avoided as much as possible, while subjects that had a direct bearing on the work of the schools were welcomed and freely discussed. Some of the supervising principals planned the conference work at the beginning of the year and had conferences which concerned especially the different classes of teachers: rural, primary, grammar, and high school, although one or two general topics were included at each conference which were applicable to all grades of schools. In this way definite conclusions were more easily obtained. Not infrequently a social gathering for the teachers, supervisors, and members of the school boards followed the conference, and much good was done in bringing about a spirit of cooperation in the work. In some districts these conferences have been held in rural schoolhouses in the country, the teachers making the journey on foot or on horseback.

An important part of each has been model classes given by the strongest teachers for the benefit of the weaker, thus giving all an opportunity to see the best work being done in the district. Exhibitions of work from both rural and graded schools have been freely displayed so that the teachers have received many valuable aids looking toward the improvement of their daily work.

In addition to these general school conferences numerous grade and group meetings, usually presided over by the supervising principal, at which the knotty problems of the work were straightened out, have been held.

The teachers are rapidly acquiring an ease and fluency of expression in English, although the conducting of the conferences in that language has not been made

obligatory. As a rule, however, they are glad of the opportunity to express themselves therein outside of the schoolroom, and not a few prefer to discuss problems relating to their school work in English rather than in Spanish.

The department has kept in touch with this important part of the work by helping supervisors with the arrangement of programs, by sending one of the general superintendents to represent the department at the meetings whenever possible, and by encouragement all along the line.

#### SUMMER INSTITUTES.

On July 8, 1912, summer institutes of eight weeks' duration were opened at Rio Piedras, Mayaguez, and Humacao. The one at Rio Piedras is being held under the auspices of the University of Porto Rico, with Mr. Felipe Janer, acting dean of the normal department, in charge. Those at Mayaguez and Humacao are being conducted by the department of education with General Supts. R. S. Garwood and W. A. Barlow in charge. The instructional force of the institute at Rio Piedras is made up largely of members of the regular faculty of the university, whereas instructors in the other two institutes are drawn from the corps of supervising principals of the island. The work in all three is essentially the same, and instruction in agriculture is especially emphasized. Credit is given in the normal department of the university for satisfactory work as evinced by examination. This means that teachers can secure advanced credits in the normal school even though it may be some time before they are in a position for further study. The ultimate value of this arrangement as an incentive to attendance in the normal school will be readily recognized.

The work in these institutes appeals to prospective teachers who wish to enter the service of the department of education and can thus avail themselves of the opportunity to review in preparation for examination; teachers already within the department who wish to advance their standing and secure a higher grade of certificate; those in the department of education who wish to pass the courses in English prescribed by the law during the summer months rather than to devote their attention to them throughout the entire year; and those who, although unable to attend the normal department of the university at present, wish to pursue part of the work required for a normal certificate by studying during the summer vacation. It also appeals to American teachers who remain on the island and desire to take special work in Spanish, graded teachers who wish to qualify themselves for authorization to teach in English by practicing in the model schools connected with each institute under the direction of experienced teachers, those of all classes who wish to spend some time getting new ideas and methods by observing the work in the model schools, and those who wish to prepare themselves as special teachers in agriculture.

Although it is not intended that the courses offered in these summer sessions should be in any narrow sense the preparation for examinations offered by the department, nevertheless persons wishing to pass such examinations find the work in a general way helpful. Classes are offered in all subjects required for the rural, graded, principal, and permanent licenses, if there is a sufficient demand for them.

The courses in agriculture are under the direction of Dean Stevens, of the college of agriculture, and his corps of specialists. The work in this subject is made as practical as possible and its direct bearing upon conditions in Porto Rico is emphasized. Attention is also given to the pedagogy of the subject.

The following courses are being offered by Dean Stevens:

*Horticulture.*—This includes consideration of the following subjects in the class room and field laboratory: Fruit culture; vegetable gardening; plant propagation; nursery methods; spraying and specific crops.

*Agronomy.*—The more important field crops of Porto Rico are given special consideration; the chief varieties; the preparation of the soil; harvesting and marketing.

*Soils.*—The leading physical and chemical characteristics are taught; the various types of soils discussed, and the methods of handling each type explained.

*Agricultural botany.*—The structure of the flower, leaf, stem, and root are taught; the physiology of plants, particularly as it relates to fertilizers and plant culture, are discussed, and the classification of the leading economic or injurious plants are given attention.

*Agricultural bacteriology.*—The fundamentals concerning bacteria; their nature, mode of growth, and reproduction; nutrition and their effects upon man and his interests, also modes of increasing the beneficial bacteria and decreasing the injurious bacteria, are considered.

*School gardens.*—This work is made practical. Practice work in them is carried on, and plans for laying them out and for beautifying school grounds are discussed.

*Entomology.*—The structure and habits of insects receive special attention, and the leading injurious and beneficial species are discussed.

*Practice school.*—For the benefit of graded teachers who wish to secure the English graded license, a practice school is maintained in connection with each of the sessions. Teachers are admitted to practice only on recommendation of their supervising principals. Candidates for the English graded license must be enrolled in the class of advanced English and pass this course as part of their preparation for the English graded license. The examination will be conducted at the end of the course by one or more of the general superintendents.

Teachers who have been classified under the letter C are given an opportunity to raise their classification by practice teaching under careful guidance.

*Model school.*—In order to furnish opportunity for the teachers to observe the best methods of instruction, a model school, covering the first four grades, is maintained in connection with each institute and is taught by carefully selected teachers.

The brevity of the course (eight weeks) and the large enrollment make it impossible to devote as much attention to the social side of life as is desirable. However, nearly every week a lecture or entertainment of some sort having a bearing on school work is given at each institute. The interest and enthusiasm of the teachers in the summer institute work is reflected by the enrollment which on August 10 is 228 at Rio Piedras, 449 at Mayaguez, and 163 at Humacao; a total of 840. This showing is all the more favorable in light of the fact that all persons attending the institutes pay their traveling expenses as well as their board and room rent while away from home from the savings they may have been able to make during the school year.

#### SCHOOL SAVINGS BANKS.

As a result of the curtailment of the school savings system in 1910-11, no effort was made to establish new depositories in the different districts of the island. In practically every district the system was discontinued and moneys on hand and in the banks returned to the depositors with a few exceptions, owing to the removal of pupils to other districts and leaving no addresses.

It is hoped that with the opening of postal savings banks in the island, the school savings system will revive and once again take hold under the perfect security offered by the Government.

#### *Balances on hand June 30, 1912.*

Coamo.....	<sup>1</sup> \$192.56
San German.....	<sup>1</sup> 119.45
Ciales.....	<sup>2</sup> 2.78
Bayamon.....	<sup>2</sup> 15.60
Adjuntas.....	<sup>2</sup> 11.84

#### SCHOOL LIBRARIES.

The establishment of school libraries, their extension, and improvement was definitely adopted by the department of education as one of the essential features of its program in the latter part of the year 1908. There were at that time some 10 school libraries in the island, and the books in the majority of these had been selected for teachers' reference, with but little thought having been given to the needs of the children. In addition, municipal libraries were maintained in 17 towns. These were usually opened only during the evening, and no permission was granted to withdraw books for home reading. Almost without exception the books were such as to appeal to mature readers, and as a consequence these municipal libraries were virtually closed to the pupils of the public schools. Rural-school libraries were unknown.

From this rather meager start we are able to report that 60 of the 70 municipalities of the island now have libraries in connection with the schools and a total of 34,702 books. As a general rule the library is located in one of the schoolrooms, which is well lighted and opened for two hours each evening. A competent teacher or librarian is in charge, and in this way pupils have an opportunity of reading or of preparing their lessons under guidance. The value of such a place for recreation and study, both from a scholastic and moral point of view is beyond estimate and may rightly be regarded as the beginning here of the "social center" movement of the United States. Furthermore, the majority of Porto Rican houses are not sufficiently well lighted for studying purposes, and this opportunity for quiet study in the library room is showing its effect in increased school efficiency.

Spanish authors have not given the same attention to the preparation of suitable juvenile reading as have the American writers. In consequence a large part of these books are in English, although a consistent effort is being made to secure suitable

<sup>1</sup> System still in operation.

<sup>2</sup> System discontinued. money not claimed by pupils.

Spanish books. While this is to be deplored, because of the increased difficulty of reading, the results in broadening the children's knowledge of English have been excellent.

In several towns the municipal authorities have cooperated with the school boards by uniting the municipal libraries with those of the schools and by helping to meet the necessary expenses. The department has approved the expenditure of school-board funds for library purposes whenever requested, provided the resources of the district permitted. The amount so spent this past year was \$2,144, a small sum, but significant of the interest taken when the heavy drains on the limited funds at the disposal of the school boards are taken into consideration.

The other sources of income depend upon private initiative, as the department has no funds for this purpose at its disposal. I am glad to record some donations which have been received from the United States, but many more could be used to good purpose. The steamship companies stand ready to transport packages of books for library purposes free of charge. Patrons of the public schools are constantly donating books, and the proceeds of not a few school entertainments have been devoted to their purchase.

Naturally more interest has been taken in the libraries located within the urban centers than in those in the country, where there is the greatest need. A rural home has, as a rule, no reading matter whatever, and all the reading which the child gets is from the textbooks in school. Some remedy must be found. There are now for rural schools 165 libraries, containing 9,337 books. Most of these are old textbooks discarded from the course of study, which, however, have the advantage of being within the child's comprehension.

Nine towns report libraries supported by municipal funds, containing 12,010 books and costing \$2,909.20 for maintenance. These were opened on an average four hours daily, and from them 8,704 books were drawn during the year. The average number who visited the libraries each day was 347.

The excellent library connected with the normal department of the University of Porto Rico at Rio Piedras has been included in the report from that town, as it is in reality a school library.

Besides the above, the insular library, the largest and best equipped in the island, is located in San Juan and supported by the insular government at a cost of \$5,780 per annum. It contains about 20,000 volumes, including 2,000 received during the fiscal year just ended. About 400 books are drawn daily, and an average of 300 persons visit the library each day. As this library is maintained by insular funds, it is felt that its usefulness should be extended over the whole island rather than, as at present, be confined to San Juan. This could best be done, undoubtedly, by sending traveling libraries to the various schools, to be kept there for a period, say, of three months.

#### SCHOOL PLAYGROUNDS.

The school year has been one of continued progress in the development and furtherance of the public school playground movement, which had its beginning in 1908. The progress made from year to year is shown in the following table:

School year.	Land set aside for play-grounds.	Towns with play-grounds.	Money spent for play-grounds.	Children using urban play-grounds.
	<i>Acres.</i>			
1908-9.....	24	27	\$3,000	5,000
1909-10.....	50	45	5,250	15,000
1910-11.....	58	52	19,746	18,420
1911-12.....	59	58	30,737	23,902

But few new playgrounds have been established within urban limits during the past year, as a large majority of the towns of the island had previously made provision for recreation centers. It is, however, a source of gratification to state that more attention has been paid to the physical development of the pupils enrolled in the rural schools, as shown by the fact that different kinds of apparatus, such as swings, trapezes, slides, etc., have been set up in many of the rural districts. Some municipalities report that complete baseball outfits have been furnished the boys enrolled in the different rural schools under their jurisdiction, and that competitive games are frequent. Apparatus for the playgrounds has been furnished by the school boards in 39 towns, and by the municipal councils in 5. In 13 it has been donated by private

individuals, and in 11 the pupils themselves have raised funds for its purchase. Several private gifts of importance for playgrounds have been reported. In one town a private corporation donated \$2,000 for athletics; in another a grandstand, costing over \$3,000, was given, and in two or three others land, and in still others different pieces of apparatus. This spontaneous demonstration of interest in the physical well-being of the children is one of the encouraging aspects of this phase of our work.

As in many instances the homemade apparatus that was put up when the playgrounds were first opened has not proved as substantial as was expected, a large number of school boards have purchased steel apparatus, as was recommended in my last annual report. In but few towns of the island are to be found teachers in charge of the playgrounds who have received special preparation for the work. As a general rule the acting principals, teachers of English, or graded teachers have offered their services and have cooperated heartily in providing a pleasant and profitable pastime for their pupils outside of school hours. Most of the playgrounds are open to the children before and after school hours and during recesses, and in a few instances they are thrown open to the children on moonlight nights.

Athletics have been engaged in more or less since the American school system was organized, but up to the time the public-school playgrounds were established a very small percentage of the pupils enrolled participated, thereby limiting the influence and benefits of outdoor sports. During recent years, through the establishment of playgrounds and the introduction of simple competitive games and contests enabling all the pupils to take part, a much larger percentage of the pupils have received the direct benefits to be obtained from their play in the open air. A few years ago it could be said that the pupils of Porto Rico did not know how to play. Before and after school and during recesses they could be seen standing in groups here and there, chatting about anything that came to their minds, but with not a thought of healthful exercises. To-day this is changed in a large measure; but I do not mean to imply that all has been done. We have made a good beginning, but there are still thousands of boys and girls enrolled in our schools who have not yet learned how to make profitable use of their spare time, and the work will not be completed until every child enrolled in our schools, and those who are not, are given an opportunity to develop strong physiques and taught how to play normally with their companions.

Groups of boys playing scrub ball are to be found at all times and in all sorts of places, and the enthusiasm which possesses them is very marked. In the early days almost all games were causes of strife and dissension, but gradually the boys are learning to respect the authority of an umpire or of the one in charge of the sports. They are also learning to take defeat gracefully, and, as a rule, the members of the losing team are the first to congratulate their winning competitors, thus demonstrating a healthy spirit of cordiality. Match ball games have been much more common this year between two teams from the same locality, or from neighboring towns, and in several municipalities athletic contests, including field and track events, have been celebrated, the pupils from adjacent towns striving for mastery. The spirit of true sportsmanship as displayed and fostered at these meets is one of the most encouraging results of our playground movement.

The annual athletic meet of the boys enrolled in the high and grammar schools of the island was held at the Hippodrome, San Juan, April 13, 1912. There were 125 entries for the different events, and, in all, 14 records were broken. The grandstands were filled with enthusiastic parents and children, and two bands of music, composed of school children, enlivened the occasion. In the evening a reception was tendered to the contestants at the assembly hall of the normal school by the athletic association of this institution.

All school athletics are directly in charge of the board of directors of the Interscholastic Athletic Association of Porto Rico, of which the membership is made up of the local associations of the different schools and towns. The constitution and by-laws, which are subject to the approval of the commissioner of education, are:

**ART. I. Name.**—The name shall be Interscholastic Athletic Association of Porto Rico.

**ART. II. Object.**—The object of this association shall be to promote interest in school athletics in Porto Rico and to secure a better acquaintance and friendship among the schools of the island.

**ART. III. Officers.**—The officers of the association shall be a secretary, treasurer, and board of directors. The secretary and the treasurer shall be appointed by the board of directors and shall hold office until their successors have been appointed.

It shall be the duty of the secretary to keep a record in a book for that purpose of all meetings of the association and of the board of directors; to arrange the program



of athletic meets held under the direction of the association and to keep a record of the results of the same. He shall also keep a record of all protests made to the board of directors and the decisions rendered by them.

The treasurer shall have charge of the printing and sale of programs and all tickets of admission to contests of the association, shall pay all bills incurred by the association out of the funds of the association, taking a receipt therefor, and shall render an account to the board of directors within two weeks after each contest, and shall present his books to the board of directors each year at the close of the annual meeting, or at the close of his term of office, for audit.

The board of directors shall be composed of the three general superintendents. It shall be the duty of the board of directors to make all arrangements for the athletic contests of the association, to authorize all expenses of the association, to audit all bills of the association, and to choose all officials for contests held under the direction of the association. It shall be the duty of the board of directors to judge and decide all questions of eligibility or appeals from the decisions of officials if presented within three days after the close of the contest.

**ART. IV. Membership.**—Any school district or department of the University of Porto Rico may become a member of this association by paying a fee of \$2 a year. Membership shall entitle a school to participate in athletic contests and to one vote, cast by the supervising principal or dean of the department, at the annual meeting, provided said school participates in at least one event in the annual meet.

**ART. V. Meeting.**—A regular meeting shall be held at the time of the annual meet or at the call of the board of directors. The annual meet shall take place not earlier than February 1 and not later than May 1. Such day shall be decided upon by the board of directors at least two months in advance.

**ART. VI. Deficit.**—Any deficit after the annual meet shall be met by levy to be determined by the board of directors.

**ART. VII. Eligibility.**—The following rules shall govern the eligibility of contestants:

1. No one shall be allowed to take part in an athletic contest who has used or is using his skill in athletics for pecuniary gain. By pecuniary gain shall be meant receiving money as pay, prizes in money, or board or lodging for athletic skill in any form.

2. No one shall be allowed to take part in an athletic contest unless his school is a member of the association.

3. No one shall be allowed to take part in an athletic contest unless he has been regularly enrolled and in regular attendance in the school he represents for at least 10 weeks before the contest, except in case of the first 10 weeks of the school year, when requirements for attendance shall be considered to begin with the first week of school. Suspension for more than one week, illness for more than one month, or absence for more than two consecutive weeks for other causes shall be deemed cause for barring him from the contest.

4. Any pupil below passing grade in more than one subject at the time of the contest shall be barred from that contest. Each supervising principal and the deans of the University of Porto Rico shall send a certified list of the entries of his school to the secretary of the association at least 20 days before the contest, and the secretary shall forward copies to the various principals and deans of the schools or departments participating at least 10 days before the contest.

**ART. VIII. Contests and meets.**—Athletic contests and meets held under the auspices of the association shall be of three classes, as follows:

**Class A:** Contests or meets between the high schools of the island and the departments of the University of Porto Rico. In contests or meets of this class only pupils regularly enrolled in these institutions shall be eligible.

**Class B:** Contests or meets between common school systems. Only pupils enrolled in the eighth grade or lower grades shall be eligible.

**Class C:** Contests or meets between school systems which maintain continuation schools. In such, pupils shall be eligible who are enrolled in any of the grades from the tenth downward. Where school systems maintaining high schools care to enter into competition with other school systems maintaining continuation schools, pupils in the high-school grades represented in the continuation schools of their competitors shall be eligible.

**ART. IX. Amendment.**—This constitution and by-laws can be amended or added to by a two-thirds vote of the members voting at the annual meeting. All notices of proposals of amendment must be signed by three supervising principals whose schools are members of the association and sent to the secretary, who shall send a copy of such proposed amendment to each officer and member at least one month before the annual meeting. An amendment, if adopted, will not go into effect until after

the annual athletic meet. All amendments must receive the approval of the commissioner of education before becoming effective.

ART. X. *Distribution of surplus.*—A reserve of \$100 shall be maintained at all times. This reserve shall be placed in the savings account of a bank, and the interest accruing thereon shall be available as any other fund. This reserve may be drawn on if needed, but no distribution shall be made of a surplus until such sum withdrawn shall have been replaced.

After all expenses shall have been paid, the surplus, or such part as may be necessary, shall be used to repay the actual traveling expenses of the various contestants to the meet and shall be distributed on a pro rata basis.

Each supervising principal shall furnish the secretary, within two weeks after the annual meet, with a certified statement of the traveling expenses actually incurred by each contestant. This distribution of surplus, if any, shall be made for the first time after the annual meet of 1911 and shall include the annual meet for 1910.

*Statistics of public-school playgrounds.*

Town.	Land ac- quired.	Amount ex- pended.	Child- ren using play- ground.	Apparatus acquired.
	<i>Acres.</i>			
San Juan.....	$\frac{1}{2}$	\$2,700.00	1,200	2 kindergarten pavilions, tent and appliances, giant strides, 2 frames with swings, climbing poles, ropes, rope ladders, wood ladders, etc., teeter ladders, jumping standards and take-off with pit, vaulting poles, baseball outfits, basket-ball outfits, medicine balls, rubber and iron quoits, sand boxes, wands, dumb bells, outfits for kindergarten games, etc.
Rio Piedras.....	$1\frac{1}{2}$	825.00	650	Steel swings, wood-ring ladder, rope ladder, flying rings, climbing rope, vaulting and jumping standards, tennis outfit, quoits, sand pine, seesaws, vaulting poles, baseball outfit, slides, parallel bars, climbing poles, giant strides, baseball outfits in all rural schools, 3 rural schools equipped with slides and swings.
Trujillo Alto.....	3	360.00	240	Frame with swings, ladders, ropes, etc., giant stride, seesaws, teeter ladders, baseball outfit in all rural schools.
Carolina.....	$\frac{1}{2}$	462.00	625	Giant strides, baseball and basket-ball outfits, swings slides, rings, ladders, parallel bars.
Rio Grande.....	$\frac{1}{2}$	223.80	300	Baseball outfit, bean bags, medicine balls, giant stride, swings, jumping standards, basket-ball outfit, flying rings, quoits, seesaws.
Loiza.....	$\frac{1}{2}$	55.80	200	Baseball outfit, basket ball, croquet set, football.
Fajardo.....	2	2,700.00	1,000	2 grand stands, hurdles, jumping standards, vaulting poles, swings, trapeze, rings, boxing gloves, baseball outfit, basket-ball outfit, football, tetherball, tennis outfits, quoits, Indian clubs, dumb-bells, tilting boards.
Naguabo.....	( <sup>1</sup> )	47.40	250	Baseball outfits.
Vieques.....	$2\frac{1}{2}$	810.00	500	2 frames with swings, ladders, rings, climbing pole, and rope, 8 seesaws, vaulting and jumping standards, tether pole, baseball outfit, grand stand, basket-ball outfit.
Humacao.....	3	2,324.00	970	Baseball and basket-ball outfits, swings, vaulting poles, jumping ropes, giant stride, parallel bars, hammock swings, etc.
Yabucoa.....	1	150.00	480	Swings, rings, seesaws, trapeze, rope ladder, slides, baseball outfits, parallel bars, vaulting buck.
Maunabo.....	$\frac{1}{2}$	33.65	175	Basket-ball and baseball outfits.
Arroyo.....	$\frac{1}{2}$	112.00	350	Seesaws, vaulting pole, jumping standards, frame with rings, swings, climbing poles, rope ladders, baseball outfit, quoits.
Patillas.....	( <sup>1</sup> ) ( <sup>2</sup> )	80.00	240	Baseball outfit, seesaws, swings, rings, quoits, vaulting poles, trapeze, jumping standards.
Juncos.....	$\frac{1}{2}$	180.00	400	Giant stride, vaulting pole, seesaw, medicine ball, trapeze, climbing rope, quoits, rings, basket-ball outfit, baseball outfit, jumping standards, iron pins.
Gurabo.....	$\frac{1}{2}$	138.00	400	Giant stride, vaulting pole, seesaw, medicine ball, quoits, iron pins, flying rings, basket-ball and baseball outfits.
Caguas.....	( <sup>1</sup> )	154.00	300	Baseball outfits, 12-pound shot, vaulting pole, spiked shoes for races, hurdles, jumping standards.
San Lorenzo.....	( <sup>2</sup> )	15.00	250	Baseball outfits.
Guayama.....	( <sup>1</sup> )	276.35	300	Baseball outfit, jumping standards, gymnasium outfit, tennis, vaulting pole, medicine balls, quoits.
Salinas.....	( <sup>1</sup> )	208.00	525	Baseball outfit, basket-ball, 12 swings, 4 seesaws.
Santa Isabel.....	$\frac{1}{2}$	896.00	475	Swings, trapeze, flying rings, slides, giant strides, seesaws, merry-go-round, miniature Ferris wheel, sand-boxes, croquet, baseball outfit.
Cayey.....	$\frac{1}{2}$	80.00	188	Baseball and basket-ball outfits, jumping standards.
Cidra.....	$\frac{1}{2}$	45.00	314	Baseball outfit.

<sup>1</sup>School yard.

<sup>2</sup>Public plaza.

*Statistics of public-school playgrounds—Continued.*

Town.	Land acquired.	Amount ex- pended.	Children using play- ground.	Apparatus acquired.
Comerio.....	<i>Acres.</i> 1	\$595.00	400	Jumping standards, frames with swings, climbing poles, ladders, trapezes, rings, and climbing ropes, baseball outfit.
Agua8 Buenas.....	$\frac{1}{2}$	50.00	50	Baseball outfit.
Albomito.....	1	193.80	175	High-jump standards, vaulting pole, hurdles, tennis, baseball outfit, swings.
Barranquitas.....	( <sup>1</sup> )	50.00	20	Baseball outfit.
Barros.....	2	46.44	160	Baseball outfit, volley ball, croquet, jumping standards.
Coamo.....	2	25.73	230	Baseball outfit.
Juana Diaz.....	2	665.00	500	Baseball outfit, jumping standards, giant stride, frame with 6 swings, slides, basket-ball outfit.
Ponce.....	5	8,000.00	1,500	Baseball, track and field equipment, tennis, swings, seesaws, giant strides, slides, jumping standards, vaulting buck, parallel bars, etc.
Guayanilla.....	( <sup>1</sup> )	60.00	25	Baseball outfit.
Pedueñas.....	1	60.00	140	Baseball and tennis outfit.
Yauco.....	( <sup>1</sup> ) ( <sup>2</sup> )	518.05	1,200	Frames with swings, trapezes, climbing poles, ladders, seesaws, slides, parallel bars, baseball, basket-ball and tennis outfits, football, medicine balls, vaulting poles, volley balls, quoits, etc.
San German.....	3	70.00	850	Baseball outfit and backstop, swings.
Sabana Grande.....	$1\frac{1}{2}$	.....	150	Baseball outfit.
Cabo Rojo.....	( <sup>1</sup> )	151.00	200	Climbing poles, trapezes, parallel bars, 3 frames with swings, ropes, wooden ladders, flying rings, jumping standards.
Mayaguez.....	7	685.00	600	Basket-ball and baseball equipment, slides, 6 seesaws, steel parallel bars, 2 giant strides, 2 medicine balls, 2 flying rings, 12 steel swings, jumping standards and poles.
Maricao.....	$\frac{1}{2}$	602.54	200	Giant stride, quoits, vaulting pole, bean bags, baseball outfit.
Las Marias.....	$\frac{1}{2}$	400.00	150	Baseball outfit.
Añasco.....	$\frac{1}{2}$	240.00	1,000	Merry-go-rounds, baseball outfit, horizontal and vertical ladders, swings, rings, trapeze, hurdles, grand stands, slides, seesaws, parallel bars, quoits, vaulting standards, medicine balls.
Rincon.....	( <sup>1</sup> )	33.00	50	Baseball outfit.
Aguada.....	$\frac{1}{2}$	240.00	300	Swings, rings, trapeze, horizontal and vertical ladders, seesaws, hurdles, merry-go-round, vaulting poles, slides, parallel bars, quoits, medicine balls, vaulting standards.
San Sebastian.....	( <sup>2</sup> )	350.00	600	Tether pole, swings, trapeze, climbing ropes, climbing spar, rings, seesaws, jumping standards, baseball outfit, slides, giant stride, inclined ladders, teeter ladders, vaulting buck, vaulting horse, etc.
Isabela.....	$\frac{1}{2}$	20.00	240	Baseball outfit, jumping standards.
Quebradillas.....	$\frac{1}{2}$	25.00	350	Baseball outfit, swings.
Utuado.....	2 $\frac{1}{2}$	1,361.66	200	Baseball equipment, seesaws, swings.
Adjuntas.....	1	1,000.00	450	Swings, seesaws, trapeze, tether ball, tennis and baseball outfits.
Camuy.....	( <sup>1</sup> )	40.00	160	Baseball equipment.
Hatillo.....	( <sup>1</sup> )	10.00	200	Do.
Arecibo.....	1	1,200.00	1,600	Swings, climbing ropes, climbing rod, trapeze, climbing ladders, parallel bars, seesaws, hurdles, jumping standards, flying rings, quoits, ring toss, basket-ball, medicine ball, volley ball, shot, hammer, baseball, football, lawn tennis, giant stride, croquet, etc.
Manati.....	$1\frac{1}{2}$	119.00	30	Vaulting pole, baseball, materials, sacks for races, stands.
Ciales.....	$\frac{1}{2}$	55.00	300	Swings, seesaws, baseball outfit, 14 swings in 6 rural schools, 3 rural school baseball outfits, basket and foot ball, quoits.
Vega Baja.....	$\frac{1}{2}$	230.00	500	Baseball outfit, croquet sets, quoits, jumping standards, swings, climbing spar and ropes, rings, rope ladders, trapeze, horizontal bar, apparatus for dipping and chinning, basket-ball and tennis outfits.
Vega Alta.....	1	80.00	250	Swings, rings, trapeze, climbing rope and spar, baseball outfit, croquet sets, quoits, outdoor gymnasium.
Corozal.....	( <sup>1</sup> )	15.00	300	Baseball outfit.
Morovis.....	$\frac{1}{2}$	15.00	100	Do.
Toa Baja.....	( <sup>1</sup> )	15.00	50	Do.
Toa Alta.....	1	10.50	200	Do.
Dorado.....	1	431.00	100	Do.
Bayamon.....	$\frac{1}{2}$	100.00	.....	Swings and rings, climbing pole, ladder, vaulting standards, seesaws, jumping standards, trapeze.

(<sup>1</sup>) School yard.(<sup>2</sup>) Public place.

## SCHOOL BUILDINGS.

Continued interest has been manifested by the department and by the school boards in the erection of modern school buildings. Every effort is being made to lessen the number of rented school rooms as fast as the resources of the local school boards permit. During the past year four school boards have constructed graded school buildings with funds obtained through loans from the insular government, while several others have obtained the loans and expect to begin building immediately.

Of the 1,168 buildings used for school purposes, 325, or 28 per cent, are owned by the Government and 843, or 72 per cent, are rented. Of the 1,845 rooms used for common schools, 759, or 42 per cent, are in buildings owned by the Government and 1,066 rooms, or 58 per cent, in those rented. Of the 325 school buildings mentioned, 102 are within the urban limits and 223 in the rural districts.

The following tables show the distribution of the buildings used for school purposes:

*School buildings, 1911-12.*

Municipality.	Buildings owned.		Buildings rented.		Total buildings.	Total rooms.	\$250 buildings. <sup>1</sup>
	Number.	Rooms.	Number.	Rooms.			
San Juan.....	7	52	14	65	21	117	.....
Rio Piedras.....	9	21	4	4	13	25	5
Trujillo Alto.....	3	6	5	5	8	14	2
Carolina.....	5	12	12	12	17	24	2
Rio Grande.....	3	8	18	19	21	27	2
Loiza.....	.....	.....	17	21	17	21	.....
Fajardo.....	2	16	26	27	28	43	.....
Naguabo.....	1	1	19	22	20	23	1
Vieques.....	3	9	7	8	10	17	.....
Humacao.....	6	11	26	38	32	49	2
Yabucoa.....	4	11	14	15	18	26	2
Maunabo.....	3	7	4	4	7	11	2
Arroyo.....	2	7	9	9	11	16	.....
Patillas.....	4	7	12	13	16	20	2
Juncos.....	2	2	8	9	11	12	2
Gurabo.....	5	7	8	9	13	16	2
Caguas.....	3	18	16	21	19	39	1
San Lorenzo.....	2	2	9	15	11	17	2
Guayama.....	2	10	18	24	20	34	.....
Salinas.....	3	6	11	14	14	20	.....
Santa Isabel.....	9	12	2	2	11	15	3
Cayey.....	7	10	10	16	17	26	2
Cidra.....	3	6	7	7	10	13	2
Comerio.....	1	1	9	13	10	14	.....
Agua Buenas.....	4	7	4	4	8	11	3
Naranjito.....	5	8	1	1	6	9	4
Albionito.....	3	10	8	8	11	18	1
Barranquitas.....	6	6	8	6	11	12	4
Barros.....	4	7	16	15	20	22	2
Cosamo.....	5	12	17	18	22	31	2
Juana Diaz.....	12	18	22	27	34	45	3
Ponce.....	9	56	40	62	49	118	.....
Guayanilla.....	5	8	11	11	16	19	3
Peñuelas.....	2	6	7	7	9	13	1
Yauco.....	11	28	17	21	28	49	6
San German.....	3	15	24	26	27	41	.....
Sabana Grande.....	5	8	7	9	12	17	1
Cabo Rojo.....	5	8	18	25	23	34	3
Lajas.....	9	12	11	11	20	23	2
Mayaguez.....	17	46	20	30	37	76	2
Maricao.....	6	9	6	6	12	15	2
Las Marias.....	7	11	11	11	18	22	1
Afasco.....	5	16	10	10	14	26	4
Rincon.....	.....	.....	7	8	7	8	.....
Aguada.....	3	7	10	10	13	17	.....
Lares.....	5	12	21	23	29	35	4
San Sebastian.....	5	8	19	21	24	29	3
Aguidilla.....	7	21	13	16	20	37	3
Moca.....	3	6	6	6	9	12	2
Isabela.....	4	7	15	16	19	23	2
Quebradillas.....	5	8	6	6	11	14	2
Utuado.....	7	8	26	35	33	43	3
Adjuntas.....	7	10	15	17	22	27	5
Jayuya.....	.....	.....	10	12	10	12	.....
Camuy.....	9	12	6	6	15	18	7
Hatillo.....	8	9	7	7	15	18	5

<sup>1</sup> Duplicate.

*School buildings, 1911-12—Continued.*

Municipality.	Buildings owned.		Buildings rented.		Total buildings.	Total rooms.	\$250 build- ings. <sup>1</sup>
	Number.	Rooms.	Number.	Rooms.			
Arecibo.....	9	40	30	30	39	70	2
Manatí.....	6	13	8	13	14	26	2
Barceloneta.....			9	13	9	13	
Ciales.....	1	6	19	19	20	25	
Vega Baja.....	3	10	9	9	12	19	2
Vega Alta.....	1	5	8	8	9	13	
Corozal.....	6	11	4	4	10	15	5
Morovis.....	5	5	9	13	14	18	4
Toa Baja.....	3	6	8	8	11	14	2
Toa Alta.....	5	5	6	10	11	15	4
Dorado.....			7	9	7	9	
Bayamon.....	5	14	25	32	30	46	
Culebra.....	1	1			1	1	2
<b>Total.....</b>	<b>325</b>	<b>759</b>	<b>843</b>	<b>1,066</b>	<b>1,168</b>	<b>1,825</b>	<b>143</b>

<sup>1</sup> Duplicates.

*Buildings owned by the people of Porto Rico and used exclusively for school purposes,  
June 30, 1912.*

## NUMBER OF ROOMS.

Municipality.	Urban.																Rural.			Total.
	1	2	3	4	5	6	8	9	10	11	12	13	16	21	22	1	2	3		
San Juan.....		3		1			1					1		1					52	
Rio Piedras.....		1										1			1		7		21	
Trujillo Alto.....				1													2		6	
Carolina.....	1						1										3		12	
Rio Grande.....						1											2		8	
Loiza.....																				
Fajardo.....							2												16	
Naguabo.....																1			1	
Vieques.....		1				1										1			9	
Humacao.....	2	2		1												1			11	
Yabucoa.....							1									3			11	
Maunabo.....					1											2			7	
Arroyo.....	1					1										7			7	
Patillas.....				1												3			7	
Juncos.....	1															2			3	
Gurabo.....	1		1													3			7	
Caguas.....													1			2			16	
San Lorenzo.....																2			2	
Guayama.....				1		1													10	
Salinas.....				1												2			6	
Santa Isabel.....	1			1												7			12	
Cayey.....				1												6			10	
Cidra.....				1												2			6	
Comerio.....																1			1	
Agua Buenas.....				1												3			7	
Naranjito.....				1												4			8	
Albionito.....				1	1											1			10	
Barranquitas.....	2															4			6	
Barros.....		1	1													2			7	
Coamo.....				1		1										3			13	
Juana Diaz.....		1				1										10			18	
Ponce.....		1			1	2				2	1					1	1		56	
Guayanilla.....				1												4			8	
Peñuelas.....					1											1			6	
Yauco.....			2								1					8			28	
San German.....			1						1							1			15	
Sabana Grande.....			1													4			8	
Cabo Rojo.....			1													4			8	
Lajas.....			1													18			12	
Mayaguez.....	1					1	1						1			11	2		46	
Maricao.....				1												5			9	
Las Marias.....				1												5	1		11	
Añasco.....				1		1										6			16	
Rincon.....																				
Aguada.....					1											2			7	
Lares.....		1		1												6			7	

*Buildings owned by the people of Porto Rico and used exclusively for school purposes.  
June 30, 1912—Continued.*

## NUMBER OF ROOMS.

Municipality.	Urban.																	Rural.			Total.
	1	2	3	4	5	6	8	9	10	11	12	13	16	21	22	1	2	3			
San Sebastian.....				1												4			8		
Aguadilla.....				2			1									3	1		21		
Moca.....				1												2			6		
Isabela.....				1												3			7		
Quebradillas.....				1												4			8		
Utua.....																6	1		8		
Adjuntas.....				1												5			10		
Jayuya.....																					
Camuy.....				1												8			12		
Hatillo.....				1												5			9		
Arecibo.....	1							1	1							1	5	1	40		
Manati.....								1								6			13		
Barceloneta.....																					
Ciales.....						1													6		
Vega Baja.....							1									2			10		
Vega Alta.....					1																
Corozal.....						1										5			11		
Morovis.....																5			5		
Toa Baja.....	2			1															6		
Toa Alta.....																5			5		
Dorado.....																					
Bayamon.....		1		1		1										2			14		
Culebra.....																1			1		
Total.....	13	12	2	35	6	13	9	1	1	2	3	1	2	1	1	216	6	1	769		

## TEXTBOOKS AND SCHOOL SUPPLIES.

An appropriation of \$60,000 was available during 1911-12 and from this amount there were disbursed for textbooks, \$33,660.23; for supplies, \$21,209.80; and for services in connection with the purchase of these books and supplies, \$5,115.81, leaving a balance on hand June 30, 1912, of \$14.16.

In addition to this appropriation for common schools there was an item of \$4,500 for contingent expenses, high schools, of which was disbursed \$4,492.35, in supplying the four high schools and the continuation schools. With such a meager appropriation not much could have been done for our high schools had we not had a no-fiscal year trust fund available from which in cases of emergency supplies may be purchased. During the past year \$6,404.63 of this fund was expended to eke out the small amount appropriated for high school textbooks, supplies, etc., and \$8,998.50 of the appropriation "Contingent expenses, common schools" making a total of \$79,881.32 spent for supplies for all schools:

Textbooks and school supplies.....	\$59,985.84
Contingent expenses:	
Common schools.....	8,998.50
High Schools.....	4,492.35
Common school equipment.....	6,404.63
Total.....	79,881.32

Dividing this sum among over 160,000 pupils enrolled in the schools gives a per capita of 0.499 available to provide each pupil with textbooks, pencils, pens, paper, chalk and the other numerous articles so necessary to the maintenance of a school system.

Textbooks on hand June 30, 1911, numbered 509,106 for common and 16,134 for high schools. There were purchased during the past year 92,050 common and 6,974 high school textbooks, and condemned as unfit, 30,532 common and 837 high. In the storehouse of the department, June 30, 1912, there were 60,586 common and 3,542 high, showing a total on hand in the island, June 30, 1912 of:

Common school.....	621,892
High School.....	20,231

642,173

## FINANCIAL STATEMENT, 1911-12.

*Regular appropriations.*

## RECEIPTS.

Regular appropriation for the fiscal year ending June 30, 1912.....	\$946, 730. 00
Instruction and training of young men in the United States, additional appropriation.....	4, 000. 00
	<u>950, 730. 00</u>

## DISBURSEMENTS.

Office:	
Salaries, office of the commissioner.....	\$34, 531. 96
Contingent expenses—	
Incidentals.....	7, 999. 94
Postage.....	945. 00
	<u>43, 476. 90</u>
Common schools:	
Salaries, common schools.....	778, 055. 15
Contingent expenses, incidentals.....	8, 998. 50
Textbooks and school supplies.....	59, 985. 84
	<u>847, 039. 49</u>
High schools:	
Salaries, high schools.....	26, 903. 78
Contingent expenses—	
Incidentals.....	4, 492. 35
Water.....	63. 00
Lighting.....	43. 83
	<u>31, 502. 96</u>
Summer institutes and general lecture work.....	998. 34
Scholarships:	
Instruction and training of young men from Porto Rico in the United States.....	8, 499. 92
Technical education of Porto Rican students in the United States.....	4, 833. 35
Education of young Porto Rican women in the United States.....	1, 638. 32
Scholarships in the high schools of Porto Rico.....	8, 296. 90
	<u>23, 268. 49</u>
Balance on hand, June 30, 1912.....	<u>4, 443. 82</u>
Total.....	950, 730. 00

*School extension in Porto Rico.*

## RECEIPTS.

Balance on hand, July 1, 1911:	
General fund.....	\$2, 252. 90
Erection of buildings.....	2, 160. 51
	<u>4, 412. 81</u>

## EXPENDITURES.

Expenses, school exhibit, insular fair.....	\$737. 58
Repairs to Aibonito Barracks.....	270. 55
Sabana Grande schoolhouse.....	1, 000. 00
Erection of buildings and repairs.....	4. 94
	<u>2, 013. 07</u>
Balance on hand, June 30, 1912:	
General fund.....	1, 849. 61
Plans.....	17. 95
Expenses, school exhibit, insular fair.....	3. 91
Repairs to Aibonito Barracks.....	229. 45
Repairs, Aguas Buenas schoolhouse.....	298. 82
	<u>2, 399. 74</u>
Total.....	4, 412. 81

*School building fund.*

## RECEIPTS.

Balance on hand, July 1, 1911:	
General fund .....	\$13,456.22
Erection of buildings .....	20,973.37
Additional appropriation .....	40,000.00
Repayments by school boards .....	7,987.53
	<u>82,417.12</u>

## EXPENDITURES.

Aguada school .....	\$3,126.76
Corozal school .....	109.50
Ciales school .....	6,633.32
Trujillo Alto school .....	2,197.32
Vega Alta school .....	8,359.50
	<u>20,426.40</u>

Balance on hand, June 30, 1912:	
General fund .....	35,943.75
Erection of buildings—	
Aguada .....	\$998.01
Corozal .....	329.22
Ciales .....	2,345.13
Vega Alta .....	71.93
Arroyo .....	2,000.00
Trujillo Alto .....	2,302.68
Aguadilla .....	18,000.00
	<u>26,046.97</u>
Total .....	<u>61,990.72</u>
Total .....	82,417.12

NOTE.—Transfers, 1911-12: Aguada, \$1,000; Arroyo, \$2,000; Aguadilla, \$18,000; Trujillo Alto, \$4,500.

*Common-school equipment—no fiscal year.*

## RECEIPTS.

Balance on hand, June 30, 1911 .....	\$4,941.18
Repayments by school boards, and others .....	3,619.15
Total .....	<u>8,560.33</u>

## EXPENDITURES.

School supplies .....	6,404.63
Balance on hand, June 30, 1912 .....	2,155.70
Total .....	<u>8,560.33</u>

*Purchase and construction of rural school buildings.*

Appropriation .....	40,000.00
Buildings erected to date .....	35,578.86
Balance on hand, June 30, 1912 .....	<u>4,421.14</u>

*Honorary scholarship for Rafael Palmer—no fiscal year.*

## RECEIPTS.

Balance on hand, June 30, 1911 .....	\$500.00
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## EXPENDITURES.

Monthly payments .....	500.00
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*Summary.*

	Receipts.	Expenditures.
Regular and additional appropriation.....	\$850,730.00	\$846,286.18
School extension in Porto Rico.....	4,412.81	2,013.07
School building fund.....	83,417.12	20,426.40
Purchase and construction, rural schools.....	40,000.00	35,578.86
Miscellaneous funds.....	9,060.33	6,904.63
Balance on hand, June 30, 1912.....		75,411.12
Total.....	1,066,620.26	1,066,620.26

## TEACHERS' SALARIES, 1911-12.

The budget for 1911-12 carried one item alone of more than three quarters of a million dollars. This amount, \$779,150, was set aside for "Salaries, common schools," and from it was paid \$778,055.15, leaving a balance on hand June 30, 1912, of \$1,094.85.

Salaries were paid to teachers as follows:

	Per month.
Continuation.....	\$83.33
English.....	75.00
Special.....	75.00
Agricultural.....	60.00
Principal (\$70, \$75).....	80.00
English, graded (\$50, \$55).....	60.00
Graded (\$45, \$50).....	55.00
Rural (\$30, \$35).....	40.00
Acting principal, extra.....	10.00
Night.....	10.00

The total amount disbursed in this manner to approximately 2,039 day teachers and 41 supervising principals was:

Teachers:	
Graded.....	\$421,775.15
Rural.....	302,240.00
Agricultural.....	5,040.00
Supervising principals.....	49,000.00
Total.....	778,055.15

Summing up the salaries paid teachers by the department and house rent paid by the school boards, there results an average monthly salary of:

Paid by the department.....	\$42.35
Including house rent from school boards.....	46.52

In accordance with the law governing absences of teachers, whereby for justifiable reasons they may be reimbursed up to 15 days, the following table shows amount disbursed and a comparison with previous years:

Years.	Teachers.	Days absent.	Days re-paid.	Amount.
1908-09.....	1,619	5,698	2,239	\$5,133.25
1909-10.....	1,644	6,531	3,280	6,551.16
1910-11.....	1,692	7,355	5,499	10,513.54
1911-12.....	2,039	8,904	7,215	13,692.20

<sup>1</sup> Sixty-eight paid 15-day limit.

## SCHOOL-BOARD ACCOUNTING.

The results obtained in the financial operations of the school boards of the island during the fiscal year 1911-12 have been highly satisfactory. The accounting system established at the beginning of the fiscal year 1904-5 so regulates the amounts of money to be expended annually by each board that it would be difficult for any one of them, no matter how limited its resources might be, to have a deficit at the close of any fiscal year.

The receipts and expenditures, a detailed statement of which appears in the following tables, demonstrate clearly the present financial condition of the different school boards. After having paid all necessary obligations, which amounted to \$430,981.21 for the fiscal year 1911-12, there remains a surplus in favor of the school boards of \$269,881.17, which is deposited in the American Colonial Bank and in the Royal Bank of Canada.

The total amount employed during the past fiscal year in the construction of school buildings was:

Retained by the treasurer of Porto Rico on account of loans for the construction of school buildings.....	\$44,546.33
Amount paid by the school boards from their own funds.....	35,818.81
<b>Total.....</b>	<b>80,365.14</b>

In former reports mention has been made of the advisability of utilizing, so far as possible, the surplus funds at the disposal of the different school boards for the construction of school buildings. In this way better accommodations can be offered the children, and the large amount spent at the present time for renting buildings for school purposes will cease. The total amount spent during the past fiscal year for rent of buildings was \$75,576.20. Mention was also made in my annual report for the year 1910-11 of the fact that the American Colonial Bank and the Royal Bank of Canada, where school funds are deposited, allow a credit of 2 per cent on all quarterly balances in favor of the school boards, which amounted to \$3,390.56 for the past fiscal year.

The following table gives the balances on hand at the close of each fiscal year since the establishment of the present system of school board accounting, and the total income of the school boards and the total expenditures:

*Comparative statement.*

Fiscal years.	Balance on hand June 30.	Total income, including balance.	Total expenditures.	Indebtedness from former years.
1903-4.....	\$8,831.93			\$51,368.95
1904-5.....	25,396.27	\$245,760.53	\$220,364.26	27,342.14
1905-6.....	43,878.24	304,693.94	260,815.70	9,215.27
1906-7.....	88,592.75	346,451.79	267,859.04	1,911.75
1907-8.....	116,438.16	504,481.26	388,043.10	
1908-9.....	127,213.59	564,699.57	437,485.98	
1909-10.....	143,074.26	562,236.15	419,161.89	
1910-11.....	181,622.07	585,313.64	403,691.57	
1911-12.....	269,881.17	700,862.38	430,981.21	

The following statement shows in detail the income and expenses of the boards during the year 1911-12:

*Receipts.*

To balance deposited in the American Colonial Bank and Royal Bank of Canada in favor of the school boards June 30, 1911.....	\$171,079.98
Total amount received by treasurers of school boards from July 1, 1911, to June 30, 1912.....	485,236.07
Total amount retained by the treasurer of Porto Rico during the fiscal year 1911-12 in payment of loans and for the construction of school houses.....	44,546.33
<b>Total.....</b>	<b>700,862.36</b>

*Disbursements.*

Rent of schoolhouses.....	\$75, 576. 20
House rent for teachers.....	101, 120. 44
Salaries of employees.....	65, 168. 61
Contingent expenses, school boards.....	5, 489. 57
Equipment and furniture.....	42, 432. 28
School and athletic material.....	7, 386. 83
Construction of school buildings.....	35, 818. 81
General expenses.....	53, 452. 24
Total.....	<u>386, 434. 88</u>
Amount paid on account of loans and for the construction of schoolhouses.	44, 546. 33
Balance.....	<u>269, 881. 17</u>
Total.....	<u><u>700, 862. 38</u></u>
To balance deposited in the American Colonial Bank and the Royal Bank of Canada to the credit of the school boards, June 30, 1912.....	269, 881. 17

## School board finances—Expenditures classified, 1911-12.

Municipality.	A Rent of school- houses.	B House rent of teachers.	C Salaries, em- ployees of school board.	D Conti- nent expen- ses, school board.	E School furni- ture and equip- ment.	F School and athletic mater- ial.	G Pay- ments for con- struction of school build- ings by school boards.	General expen- ses.	Total.
San Juan.....	\$12,930.00	\$9,478.00	\$8,039.90	\$141.35	\$4,904.92	\$46.00	\$3,934.35	\$4,629.00	\$44,103.52
Rio Piedras.....	402.00	2,078.48	1,443.70	41.35	654.88	390.68	9,963.20	1,105.46	16,069.75
Trujillo Alto.....	411.00	1,405.00	238.13	106.73	351.14	185.45	49.33	312.73	2,259.51
Carolina.....	797.83	1,335.16	837.13	59.48	238.54	270.04	283.78	949.22	4,771.15
Rio Grande.....	974.00	1,025.11	454.08	114.43	726.00	212.90	944.41	844.41	5,234.94
Loísa.....	1,523.00	1,332.00	625.28	99.04	762.83	329.73	.....	349.50	6,021.44
Fajardo.....	2,044.00	3,449.33	2,257.69	127.01	768.44	306.13	1,598.54	3,937.64	14,488.78
Naguabo.....	1,821.00	1,206.00	681.73	13.49	488.67	49.00	283.48	376.53	4,919.90
Vieques.....	818.66	1,258.85	1,506.40	98.62	424.42	105.61	1,235.09	3,462.03	8,929.68
Humacao.....	3,002.80	2,542.05	2,289.86	128.92	2,236.78	187.05	3,134.85	1,516.01	15,018.32
Yabucoa.....	972.00	1,500.55	1,203.66	92.60	457.50	91.24	1,084.18	565.69	5,967.12
Maunabo.....	142.67	467.06	1,152.66	16.82	123.53	15.00	.....	247.80	1,96.83
Arroyo.....	512.00	691.25	607.91	28.79	272.96	7.50	28.00	811.86	2,567.17
Patillas.....	718.04	1,054.38	498.48	112.40	629.03	48.91	.....	271.79	3,307.97
Junco.....	1,641.00	1,271.66	921.07	18.00	1,144.58	23.85	.....	596.63	5,634.85
Gurabo.....	663.00	1,052.00	676.69	66.62	125.87	13.35	.....	619.73	3,218.26
Caguas.....	1,994.96	2,684.75	1,899.95	27.95	2,233.46	36.50	1,162.31	1,046.06	11,049.53
San Lorenzo.....	749.67	873.20	355.76	26.69	639.57	10.65	10.50	278.35	2,944.39
Guayama.....	2,016.00	2,025.08	1,821.00	267.50	887.30	75.00	.....	1,722.92	8,516.30
Salinas.....	1,224.00	1,065.53	1,166.73	41.93	689.77	82.78	.....	994.71	5,735.45
Santa Isabel.....	234.00	1,192.20	1,228.56	59.61	59.62	165.90	.....	895.20	3,635.09
Cayey.....	1,175.00	2,034.20	791.87	58.00	384.12	61.30	500.00	607.39	6,003.88
Cidra.....	352.00	5,602.50	118.92	37.38	52.78	8.40	.....	291.74	1,363.72
Comerio.....	810.00	648.00	581.46	165.54	189.33	45.00	580.00	579.63	3,699.96
Agua Buena.....	296.66	404.25	285.26	48.66	47.87	24.75	61.60	336.06	1,450.03
Naranjito.....	.....	261.00	72.07	12.88	37.65	19.50	5.00	100.44	508.54
Albionito.....	411.00	733.67	385.80	26.06	520.53	60.99	.....	454.92	2,591.37
Barranquitas.....	348.00	432.00	94.09	26.25	32.04	11.50	.....	276.72	1,220.61
Barros.....	914.82	703.45	435.87	31.21	218.37	103.18	55.00	505.20	2,396.30
Coamo.....	1,668.00	2,575.85	461.41	37.60	434.52	45.78	.....	502.66	3,598.06
Juana Diaz.....	6,832.80	9,255.80	6,615.00	159.30	637.79	60.93	3,700.70	1,689.56	8,777.28
Ponce.....	6,600.80	9,860.40	6,001.27	82.99	346.04	16.00	.....	562.61	28,743.93
Guayanilla.....	363.33	453.70	553.08	24.96	158.17	5.00	250.00	600.42	2,390.64
Yauco.....	1,160.00	3,735.00	2,104.69	185.76	1,672.29	329.59	1,085.13	1,776.40	12,246.46
San German.....	1,047.00	1,772.12	1,001.28	56.18	695.80	73.10	497.00	790.52	5,908.00
Sabana Grande.....	554.00	612.00	287.03	30.90	213.20	14.26	20.00	359.63	1,891.02
Cabo Rojo.....	1,178.00	1,306.60	894.12	66.67	404.17	15.00	125.00	495.83	4,475.29
Lajas.....	538.00	970.00	647.41	42.10	181.44	19.29	553.79	817.93	3,457.96
Mayaguez.....	2,285.00	4,674.39	2,868.21	205.55	2,237.48	755.39	1,687.25	2,793.81	17,497.08
Maricao.....	396.00	863.90	643.15	83.10	294.64	105.00	.....	665.37	3,081.16
Las Marias.....	576.00	965.00	536.21	74.15	82.63	455.23	1,440.15	857.88	5,007.25
Añasco.....	416.00	1,137.97	862.34	148.83	213.80	114.25	44.60	606.28	3,576.07
Rincon.....	396.00	306.00	197.13	12.70	51.02	8.76	12.89	141.15	1,115.64
Aguada.....	536.00	670.70	796.19	39.61	1,645.18	199.27	12.00	727.12	4,626.07
Lares.....	1,081.68	1,499.33	768.01	92.77	747.79	94.55	22.50	428.17	4,734.80
San Sebastian.....	723.00	1,311.00	510.98	39.07	278.06	48.65	53.57	458.67	3,423.20
Aguedilla.....	537.00	1,314.50	467.36	42.00	1,012.94	45.10	.....	350.85	3,798.75
Moca.....	172.83	455.57	183.64	28.60	34.98	7.55	8.50	79.29	950.93
Isabela.....	487.00	882.20	346.51	40.00	102.00	4.90	.....	417.74	2,280.35
Quebradillas.....	171.00	526.32	106.84	11.69	11.74	4.45	.....	278.51	1,110.55
Ututo.....	2,016.00	1,649.30	1,180.80	47.79	1,046.04	232.25	60.25	468.94	6,681.37
Adjuntas.....	948.00	1,453.30	555.04	122.12	391.33	93.66	126.50	449.17	4,139.12
Jayuya.....	491.00	300.75	177.11	36.97	353.90	36.50	.....	252.43	1,648.66
Camuy.....	328.33	715.00	374.40	66.40	334.92	20.10	225.60	547.79	2,612.84
Hatillo.....	392.00	698.00	526.78	62.15	235.74	33.75	244.54	522.02	2,706.58
Arecibo.....	1,739.00	5,172.58	2,450.29	378.05	2,996.41	714.97	409.31	1,637.12	15,497.83
Manati.....	1,664.50	1,619.38	1,093.43	174.02	848.98	24.70	.....	637.94	9,952.95
Barceloneta.....	1,060.00	700.23	515.82	342.69	822.10	7.09	187.05	313.58	3,944.56
Ciales.....	504.00	1,041.00	404.93	91.18	687.26	55.47	220.00	459.77	3,451.61
Vega Baja.....	399.00	792.75	609.24	146.50	64.81	69.00	.....	507.74	2,559.04
Vega Alta.....	448.33	479.70	341.02	54.59	696.79	47.30	15.00	299.72	2,349.45
Corozal.....	.....	486.00	141.75	15.48	81.37	35.01	.....	327.75	1,087.36
Morovis.....	476.00	522.80	247.65	22.25	115.96	94.15	17.00	274.16	1,799.97
Tos Bajas.....	448.00	918.00	609.81	149.02	312.33	37.75	.....	559.97	3,014.88
Tos Altos.....	321.00	621.20	131.94	22.63	20.58	4.10	.....	111.85	1,133.30
Dorado.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bayamon.....	2,698.00	2,534.00	1,381.35	48.40	798.64	69.75	2.00	944.56	8,477.30
<b>Total.....</b>	<b>75,576.20</b>	<b>101,120.44</b>	<b>65,158.51</b>	<b>5,499.57</b>	<b>42,432.28</b>	<b>7,896.83</b>	<b>35,818.81</b>	<b>53,452.24</b>	<b>395,434.88</b>

1 The accounts of the school board of Dorado not received at the date of closing this statement.

DEPARTMENT	REVENUE	EXPENDITURE	REVENUE	EXPENDITURE	REVENUE	EXPENDITURE
GENERAL	EDUCATION	EDUCATION	EDUCATION	EDUCATION	EDUCATION	EDUCATION
Salaries	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00
Supplies	50.00	50.00	50.00	50.00	50.00	50.00
Travel	10.00	10.00	10.00	10.00	10.00	10.00
Postage	5.00	5.00	5.00	5.00	5.00	5.00
Telephone	15.00	15.00	15.00	15.00	15.00	15.00
Light and Heat	20.00	20.00	20.00	20.00	20.00	20.00
Water	10.00	10.00	10.00	10.00	10.00	10.00
Gas	10.00	10.00	10.00	10.00	10.00	10.00
Insurance	10.00	10.00	10.00	10.00	10.00	10.00
Interest	10.00	10.00	10.00	10.00	10.00	10.00
Depreciation	10.00	10.00	10.00	10.00	10.00	10.00
Other	10.00	10.00	10.00	10.00	10.00	10.00
Total	1,230.00	1,230.00	1,230.00	1,230.00	1,230.00	1,230.00

The accounts of the school board of Dallas not received at the date of closing this statement.

TABLE I.—Annual enrollment—Number of different pupils enrolled during the year 1911-12.

Municipality.	Secondary schools.	Common schools.			Special schools.			Grand total.
		Graded.	Rural.	Total.	Night.	Kinder-garten.	Charitable and correctional.	
San Juan.....	344	5,530	1,032	6,562	769	168	450	8,293
Rio Piedras <sup>1</sup> .....	250	1,100	1,353	2,453	190			2,893
Trujillo Alto.....		219	621	840	106			946
Carolina.....		682	1,606	2,187	358			2,545
Rio Grande.....	9	550	1,723	2,273	125			2,407
Leiza.....		292	1,234	1,526	198			1,724
Fajardo.....	26	1,849	1,369	3,218	282			3,526
Naguabo.....		703	1,201	1,904	474			2,438
Vieques.....	11	766	485	1,251	121			1,583
Humacao.....	65	1,234	2,537	3,771	751			4,587
Yabucoa.....		481	1,867	2,348	107			2,455
Maunabo.....		185	435	620	39			689
Arroyo.....		540	612	1,152	115			1,267
Patillas.....		453	1,093	1,546	169			1,705
Juncos.....		781	837	1,618	287			1,906
Gurabo.....		569	725	1,294	310			1,604
Caguas.....	28	1,339	1,656	2,995	276			3,299
San Lorenzo.....		493	978	1,471	139			1,610
Guayama.....	35	1,227	1,518	2,745	251			3,031
Salinas.....		583	1,041	1,624	171			1,795
Santa Isabel.....		398	634	1,032	255			1,287
Cayey.....	11	860	1,149	2,009	154			2,174
Cidra.....		402	718	1,120	137			1,257
Comerio.....		476	649	1,125	179			1,304
Aguas Buenas.....		251	601	852	145			997
Naranjito.....		83	618	701	51			752
Aibonito.....	9	617	730	1,347	212			1,568
Barranquitas.....		341	795	1,136	38			1,174
Barros.....		353	1,863	1,716	131			1,847
Coamo.....	14	697	1,528	2,225	215			2,454
Juana Diaz.....		699	2,388	3,087	537			3,624
Ponce.....	391	4,938	2,989	7,927	764	100		9,182
Guayanilla.....		292	1,321	1,623	159			1,782
Peñuelas.....		190	919	1,109	153			1,262
Yacoo.....	15	1,223	2,363	3,586	263			3,844
San German.....	29	954	1,902	2,916	587			3,532
Sabana Grande.....		272	1,056	1,328	363			1,691
Cabo Rojo.....		759	2,022	2,781	620			3,401
Lajas.....		288	1,356	1,644	285			1,929
Mayaguez.....	175	3,129	2,359	5,488	641		120	6,424
Maricao.....		376	882	1,258	155			1,413
Las Marias.....		239	1,296	1,535	42			1,577
Añasco.....		776	1,450	2,226	245			2,471
Rincon.....		116	651	767	207			974
Aguada.....		336	906	1,242	183			1,425
Lares.....		693	2,685	3,378	417			3,795
San Sebastian.....		535	2,469	3,004	263			3,267
Aguadilla.....		1,004	2,100	3,104	247			3,351
Moca.....		335	569	904	53			957
Isabela.....		340	1,596	1,936	314			2,250
Quebradillas.....		341	836	1,177	227			1,404
Ututo.....	15	676	3,051	3,727	159			3,881
Adjuntas.....		491	1,964	2,455	195			2,650
Jayuya.....		87	1,092	1,179	123			1,302
Camuy.....		382	1,218	1,600	38			1,638
Hatillo.....		225	974	1,202	125			1,327
Arecibo.....	70	1,909	2,848	4,817	538			5,425
Manati.....	21	998	861	1,859	214			2,094
Barceloneta.....		188	801	989	95			1,084
Ciales.....		587	1,797	2,384	279			2,663
Vega Baja.....		654	1,000	1,654	207			1,861
Vega Alta.....		410	768	1,178	237			1,415
Corozal.....		258	1,283	1,541	123			1,664
Morovis.....		250	1,264	1,514	297			1,811
Toa Baja.....		345	521	866	185			1,051
Toa Alta.....		276	758	1,034	186			1,170
Dorado.....		212	312	524	40			564
Bayamon.....	29	1,849	2,179	4,028	407			4,404
Culebra.....			132	132				132
Total.....	1,547	51,809	89,615	141,424	16,848	208	570	160,657

<sup>1</sup> Including normal and practice school.

TABLE II.—Average daily enrollment for the school year of 152 days in night schools and 171 days in all other schools.

Municipality.	Second- ary schools.	Common schools.			Special schools			Grand total.
		Graded	Rural.	Total.	Night.	Kinder- garten.	Charita- ble and correc- tional.	
San Juan.....	296	4,435	821	5,256	363	103	431	6,449
Rio Piedras.....	229	947	1,072	2,019	139			2,387
Trujillo Alto.....		195	524	719	85			804
Carolina.....		491	1,206	1,696	174			1,870
Rio Grande.....	7	479	1,375	1,854	125			1,986
Loísa.....		260	1,030	1,290	159			1,449
Fajardo.....	24	1,421	984	2,405	181			2,610
Naguabo.....		626	928	1,554	229			1,783
Vieques.....	7	574	343	917	60			984
Humacao.....	58	1,009	2,074	3,083	574			3,715
Yabucoa.....		483	1,478	1,961	45			2,006
Maunabo.....		240	381	621	16			637
Arroyo.....		473	555	1,028	65			1,093
Patillas.....		382	856	1,238	97			1,335
Juncos.....		660	597	1,257	154			1,411
Guirabo.....		430	571	1,001	170			1,171
Caguas.....	22	1,190	1,357	2,547	191			2,780
San Lorenzo.....		408	776	1,184	82			1,266
Guayama.....	27	1,047	1,138	2,185	101			2,313
Salinas.....		471	718	1,189	81			1,270
Santa Isabel.....		322	420	742	106			848
Cayey.....	9	782	957	1,739	129			1,877
Cidra.....		351	610	961	64			1,025
Comerio.....		382	548	930	123			1,053
Agua Buenas.....		238	481	719	105			824
Naranjito.....		75	509	584	28			609
Albionito.....	7	516	580	1,096	80			1,183
Barranquitas.....		292	654	946	22			968
Barros.....		281	965	1,246	71			1,317
Coamo.....	13	630	1,220	1,850	99			1,962
Juana Díaz.....		604	1,941	2,545	263			2,808
Ponce.....	351	4,419	2,178	6,597	430	77		7,455
Guayanilla.....		285	1,024	1,309	65			1,374
Peñuelas.....		169	735	904	87			991
Yauco.....	13	1,213	1,861	3,074	113			3,200
San German.....	26	824	1,418	2,242	393			2,661
Sabana Grande.....		248	882	1,130	115			1,245
Cabo Rojo.....		633	1,633	2,266	269			2,535
Lajas.....		247	1,091	1,338	115			1,453
Mayaguez.....	184	2,222	2,164	4,386	382		97	5,019
Maricao.....		270	660	930	106			1,036
Las Marias.....		169	962	1,131	36			1,167
Añasco.....		609	1,032	1,641	143			1,784
Rincon.....		96	519	615	110			725
Aguada.....		238	673	911	149			1,080
Lares.....		572	1,895	2,467	221			2,688
San Sebastian.....		454	1,974	2,428	204			2,632
Aguadilla.....		894	1,786	2,680	155			2,835
Moca.....		256	462	718	37			755
Isabela.....		332	1,248	1,580	173			1,753
Quebradillas.....		295	660	955	147			1,102
Ututo.....	11	623	2,316	2,939	77			3,027
Adjuntas.....		451	1,582	2,033	74			2,107
Jayuya.....		71	872	943	61			1,004
Camuy.....		298	964	1,262	67			1,349
Hatillo.....		185	767	952	86			1,088
Arecibo.....	61	1,597	2,246	3,843	264			4,168
Manati.....	16	853	640	1,493	94			1,603
Barceloneta.....		169	601	770	67			837
Ciales.....		419	1,417	1,836	167			2,003
Vega Baja.....		583	776	1,359	162			1,521
Vega Alta.....		337	635	972	170			1,142
Corozal.....		206	1,060	1,266	69			1,335
Morovis.....		209	583	1,092	240			1,332
Tos Baja.....		344	386	730	79			809
Tos Alta.....		215	567	782	61			843
Dorado.....		198	233	431	24			455
Bayamon.....	23	1,469	1,626	3,095	263			3,381
Culebra.....			102	102				102
Total.....	1,354	43,366	70,218	113,584	9,653	180	528	126,299

<sup>1</sup> Including normal and practice school.

TABLE III.—Average daily attendance for the school year of 132 days in night schools and 171 days in all other schools.

Municipality.	Second- ary schools.	Common schools.			Special schools.			Grand total.
		Graded.	Rural.	Total.	Night.	Kinder- garten.	Charita- ble and correc- tional.	
San Juan.....	278	4,253	782	5,035	299	96	429	6,136
Rio Piedras.....	222	895	986	1,881	122			2,225
Trujillo Alto.....		185	494	679	75			754
Carolina.....		461	1,134	1,595	152			1,747
Rio Grande.....	6	459	1,312	1,771	106			1,883
Loísa.....		248	976	1,224	139			1,363
Fajardo.....	22	1,314	880	2,174	147			2,343
Naguabo.....		597	840	1,437	184			1,621
Vieques.....	6	541	298	839	50			895
Humacao.....	53	976	1,918	2,894	485			3,432
Yabucoa.....		458	1,415	1,873	37			1,910
Maunabo.....		234	363	597	12			609
Arroyo.....		430	506	936	43			979
Patillas.....		367	757	1,124	74			1,196
Juncos.....		626	522	1,148	122			1,270
Gurabo.....		396	510	906	133			1,039
Caguas.....	20	1,120	1,198	2,313	162			2,495
San Lorenzo.....		389	681	1,070	66			1,136
Guayama.....	25	996	1,051	2,047	72			2,144
Salinas.....		435	653	1,088	72			1,160
Santa Isabel.....		300	380	680	87			767
Cayey.....	8	755	919	1,674	113			1,795
Cidra.....		330	585	915	57			972
Comerio.....		356	516	872	103			975
Aguaa Buenas.....		222	429	651	85			736
Naranjito.....		70	457	527	19			546
Aibonito.....	5	488	533	1,016	69			1,091
Barranquitas.....		277	602	879	16			895
Barros.....		268	899	1,167	60			1,227
Coamo.....	12	587	1,111	1,698	74			1,734
Juana Díaz.....		563	1,743	2,306	218			2,524
Ponce.....	332	4,155	1,954	6,109	353	68		6,862
Guayanilla.....		262	881	1,143	43			1,186
Peñuelas.....		160	666	826	57			883
Yauco.....	12	1,146	1,708	2,854	93			2,959
San German.....	24	761	1,267	2,018	302			2,344
Sabana Grande.....		240	845	1,085	97			1,182
Cabo Rojo.....		624	1,486	2,110	225			2,335
Lajas.....		242	1,033	1,275	99			1,374
Mayaguez.....	148	2,126	1,994	4,120	320		82	4,670
Maricao.....		254	611	865	88			953
Las Marias.....		156	887	1,043	28			1,071
Afasco.....		543	910	1,453	106			1,559
Rincón.....		89	461	550	83			633
Aguada.....		225	581	806	110			916
Lares.....		545	1,735	2,280	183			2,463
San Sebastian.....		443	1,837	2,280	178			2,458
Aguadilla.....		819	1,560	2,379	109			2,488
Moca.....		227	391	618	24			642
Isabela.....		291	1,111	1,402	138			1,540
Quebradillas.....		260	575	835	109			944
Utua.....	10	588	2,087	2,675	60			2,745
Adjuntas.....		423	1,447	1,870	56			1,926
Jayuya.....		66	820	886	43			929
Camuy.....		270	846	1,116	54			1,170
Hatillo.....		162	698	860	63			923
Arecibo.....	58	1,543	2,070	3,613	216			3,887
Manatí.....	15	826	589	1,415	73			1,503
Barceloneta.....		161	552	713	49			762
Ciales.....		393	1,302	1,695	132			1,827
Vega Baja.....		536	665	1,201	134			1,365
Vega Alta.....		327	595	922	149			1,071
Corozal.....		193	972	1,165	54			1,219
Morovis.....		197	809	1,006	203			1,209
Toa Baja.....		316	358	674	64			738
Toa Alta.....		206	527	733	47			780
Dorado.....		183	207	390	18			408
Bayamón.....	21	1,417	1,465	2,912	226			3,159
Culebra.....			100	100				100
Total.....	1,278	40,966	64,077	105,043	7,839	163	511	114,834



TABLE IV.—Annual census—Number of pupils enrolled in all schools Mar. 1, 1912.

Municipality.	Second- ary schools.	Common schools.			Special schools.			Grand total.
		Graded.	Rural.	Total.	Night.	Kinder- garten.	Charita- ble and correc- tional.	
San Juan.....	304	4,619	859	5,478	440	122	415	6,759
Rio Piedras <sup>1</sup> .....	218	978	1,217	2,195	139			2,554
Trujillo Alto.....		197	575	772	87			859
Carolina.....		539	1,279	1,818	212			2,030
Rio Grande.....	7	492	1,464	1,956	127			2,090
Loísa.....		250	1,085	1,335	155			1,490
Fajardo.....	25	1,716	1,113	2,829	202			3,036
Naguabo.....		684	1,013	1,647	228			1,875
Vieques.....	6	581	968	1,449	58			1,503
Humacao.....	61	1,025	2,315	3,340	596			3,997
Yabucoa.....		505	1,537	2,042	50			2,092
Maunabo.....		240	397	637	20			657
Arroyo.....		451	581	1,032	71			1,103
Patillas.....		423	939	1,362	112			1,474
Juncos.....		719	725	1,444	205			1,649
Gurabo.....		467	623	1,090	193			1,273
Caguas.....	19	1,191	1,515	2,706	201			2,926
San Lorenzo.....		429	899	1,298	95			1,393
Guayama.....	27	1,085	1,122	2,157	88			2,272
Salinas.....		524	875	1,399	77			1,476
Santa Isabel.....		357	510	867	103			970
Cayey.....	8	805	1,029	1,834	126			1,963
Cidra.....		366	667	1,033	68			1,101
Comerio.....		400	613	1,013	140			1,153
Agua Buenas.....		249	558	807	124			931
Naranjito.....		81	583	664	33			697
Aibonito.....	7	534	653	1,187	46			1,240
Barranquitas.....		294	694	988	27			1,015
Barros.....		298	1,073	1,371	78			1,449
Coamo.....	18	640	1,275	2,015	96			2,124
Juana Díaz.....		657	2,074	2,731	320			3,051
Ponce.....	354	4,581	2,468	7,049	526	80		8,096
Guayanilla.....		270	1,088	1,358	65			1,423
Pedernales.....		180	817	997	92			1,089
Yauco.....	13	1,202	2,077	3,279	112			3,404
San German.....	26	857	1,644	2,501	428			2,955
Sabana Grande.....		245	982	1,210	78			1,288
Cabo Rojo.....		652	1,789	2,421	293			2,714
Lajas.....		259	1,169	1,428	93			1,521
Mayaguez.....	150	2,170	2,554	4,724	374		99	5,347
Maricao.....		306	769	1,075	139			1,214
Las Marias.....		197	1,151	1,348	46			1,394
Añasco.....		642	1,222	1,864	147			2,011
Rincon.....		108	591	699	106			805
Aguada.....		247	780	1,027	162			1,189
Lares.....		633	2,483	3,116	297			3,413
San Sebastian.....		473	2,373	2,846	242			3,088
Agua Dulce.....		438	1,989	2,407	156			2,963
Moca.....		305	529	834	48			882
Imbela.....		351	1,537	1,888	187			2,075
Quebradillas.....		319	733	1,052	141			1,193
Ututo.....	12	636	2,608	3,244	92			3,348
Adjuntas.....		431	1,738	2,169	70			2,239
Jayuya.....		73	966	1,039	62			1,101
Camuy.....		305	1,089	1,374	62			1,436
Hatillo.....		184	875	1,059	100			1,159
Arecibo.....	62	1,617	2,511	4,128	303			4,493
Manati.....	16	919	749	1,668	73			1,757
Barceloneta.....		171	698	869	62			931
Ciales.....		402	1,615	2,017	175			2,192
Vega Baja.....		589	907	1,496	113			1,609
Vega Alta.....		335	750	1,085	140			1,225
Corozal.....		224	1,249	1,473	99			1,572
Morovis.....		234	925	1,159	246			1,405
Toa Baja.....		369	401	770	87			857
Toa Alta.....		224	637	861	68			929
Dorado.....		216	248	464	25			490
Bayamon.....	25	1,459	1,758	3,217	226			3,468
Culebra.....			107	107				107
Total.....		1,353	44,912	78,796	123,708	10,252	514	136,029

<sup>1</sup> Including the normal and practice school.

TABLE V.—*Percentage of attendance; average daily enrollment and attendance per school and per learner.*

Municipality.	Per cent of attendance.			Average daily enrollment.						Average daily attendance.					
				Per school.			Per teacher.			Per school.			Per teacher.		
	Graded.	Rural.	Night.	Graded.	Rural.	Night.	Graded.	Rural.	Graded.	Rural.	Night.	Graded.	Rural.		
San Juan.....	95.9	95.2	82.3	40.0	39.1	37.9	47.2	58.6	38.3	37.9	23.0	48.7	58.4		
Rio Piedras.....	95.5	92.6	87.8	43.0	38.3	34.7	43.0	47.3	40.7	37.9	23.0	48.7	58.4		
Trujillo Alto.....	95.2	94.3	87.8	39.0	37.4	28.3	48.7	74.9	37.0	37.9	23.0	48.7	58.4		
Carolina.....	93.0	91.0	87.4	40.1	38.9	28.3	54.0	70.9	46.1	37.9	23.0	48.7	58.4		
Rio Grande.....	96.0	95.4	84.8	53.2	44.4	20.8	69.9	72.4	41.0	42.3	21.2	51.0	61.0		
Loiza.....	95.1	94.8	87.4	37.1	41.0	26.9	61.8	40.2	39.8	21.0	47.3	51.0	61.0		
Pajardo.....	92.4	87.4	81.2	43.1	41.0	38.6	43.3	68.7	44.4	34.4	21.2	51.0	61.0		
Naguabo.....	95.3	90.5	80.3	42.2	38.1	30.0	67.4	67.2	41.0	37.9	23.0	48.7	58.4		
Vieques.....	94.3	86.5	81.2	43.1	40.7	41.0	66.1	70.8	42.4	37.9	23.0	48.7	58.4		
Humacao.....	96.7	92.5	84.6	40.2	46.2	22.5	60.8	63.6	38.3	37.9	23.0	48.7	58.4		
Yabucoa.....	97.7	95.3	82.0	40.2	38.1	16.0	60.8	63.6	38.3	37.9	23.0	48.7	58.4		
Maunabo.....	97.5	95.3	78.0	47.3	37.0	16.0	67.6	61.7	38.3	37.9	23.0	48.7	58.4		
Arroyo.....	91.2	86.2	70.0	40.0	37.0	32.8	54.0	61.7	44.4	37.9	23.0	48.7	58.4		
Patillas.....	94.1	88.4	76.3	34.7	35.7	32.8	54.0	61.7	44.4	37.9	23.0	48.7	58.4		
Puntas.....	96.8	87.4	79.2	47.1	37.3	32.8	66.0	60.1	44.4	37.9	23.0	48.7	58.4		
Juncos.....	92.1	89.3	78.2	47.8	43.9	44.4	68.2	62.6	44.4	37.9	23.0	48.7	58.4		
Gurabo.....	94.1	87.9	84.8	47.6	41.1	38.2	62.6	70.8	44.4	37.9	23.0	48.7	58.4		
Caguas.....	95.3	87.8	80.5	40.8	38.8	28.2	58.2	77.0	46.3	37.9	23.0	48.7	58.4		
San Lorenzo.....	95.1	92.3	71.2	47.6	35.6	28.2	64.9	68.7	38.3	37.9	23.0	48.7	58.4		
Guayama.....	95.8	90.9	88.8	39.2	35.9	27.0	60.0	62.6	38.3	37.9	23.0	48.7	58.4		
Salinas.....	92.4	90.5	82.0	35.8	32.8	36.0	62.6	72.7	38.3	37.9	23.0	48.7	58.4		
Santa Isabel.....	92.4	90.5	88.8	39.2	35.9	27.0	60.0	62.6	38.3	37.9	23.0	48.7	58.4		
Cayey.....	94.5	95.0	87.6	46.0	36.8	32.2	55.9	68.4	47.3	37.9	23.0	48.7	58.4		
Cidra.....	96.5	95.9	89.0	50.1	38.1	32.0	70.2	76.2	47.3	37.9	23.0	48.7	58.4		
Comerio.....	93.2	94.2	81.7	42.4	34.2	20.7	63.7	68.7	38.3	37.9	23.0	48.7	58.4		
Agua Buena.....	93.3	89.2	81.0	39.7	37.0	26.0	58.6	68.7	38.3	37.9	23.0	48.7	58.4		
Naranjito.....	93.3	89.8	76.0	37.9	32.2	26.0	58.6	72.7	38.3	37.9	23.0	48.7	58.4		
Aibonito.....	93.6	91.9	86.2	46.9	32.2	26.7	64.6	64.4	45.4	37.9	23.0	48.7	58.4		
Barranquitas.....	94.9	92.0	72.7	58.4	46.7	22.0	67.3	81.7	55.4	43.0	21.2	51.0	61.0		
Barros.....	95.4	88.2	84.5	49.1	34.6	17.7	56.2	60.3	38.3	37.9	23.0	48.7	58.4		
Coamo.....	93.2	91.0	74.7	45.0	32.3	23.1	54.2	64.2	41.9	37.9	23.0	48.7	58.4		
Juana Diaz.....	93.2	89.8	82.9	40.3	32.3	23.1	54.2	64.2	41.9	37.9	23.0	48.7	58.4		
Ponce.....	94.0	89.7	82.1	42.5	33.0	23.1	54.2	64.2	41.9	37.9	23.0	48.7	58.4		
Guayanilla.....	91.9	86.0	66.2	47.9	39.4	20.0	57.0	78.7	43.7	33.0	21.2	51.0	61.0		
Penuelas.....	94.7	89.6	66.5	42.2	40.8	20.0	42.2	81.6	40.0	32.0	23.2	52.0	62.0		
Yauco.....	94.5	91.4	82.3	44.9	35.8	20.0	54.1	71.6	42.0	32.0	23.2	52.0	62.0		
San German.....	92.4	88.6	78.8	48.5	32.2	23.1	58.9	82.5	44.0	32.0	23.2	52.0	62.0		
Sehuna Grande.....	94.8	86.4	84.3	46.8	40.8	23.0	41.3	67.3	44.0	32.0	23.2	52.0	62.0		
Cabo Rojo.....	98.6	91.0	86.6	52.9	38.8	28.9	63.3	71.0	52.0	36.2	24.4	62.0	72.0		
Lajas.....	98.0	94.7	88.1	41.2	34.3	28.9	40.4	60.6	42.0	32.0	24.4	62.0	72.0		
Mayaguez.....	96.7	92.1	83.8	51.7	38.3	30.0	66.4	58.9	42.0	32.0	24.4	62.0	72.0		
Maricao.....	94.3	92.8	83.0	45.0	33.0	21.2	54.0	66.0	42.0	32.0	24.4	62.0	72.0		
Las Marias.....	92.3	92.2	77.7	33.9	30.1	18.0	42.2	60.1	31.2	27.7	14.0	30.0	40.0		
Anasco.....	96.2	92.2	74.1	41.8	36.4	30.1	48.6	56.4	44.3	31.4	21.2	52.0	62.0		
Rincon.....	92.7	88.9	73.8	38.0	33.2	22.0	32.0	51.1	34.5	28.4	16.0	36.0	46.0		
Agua Prieta.....	94.3	88.3	73.3	39.7	29.3	22.0	39.7	51.8	35.5	26.3	22.0	36.0	46.0		
Lares.....	95.3	91.8	82.8	44.0	34.1	34.8	45.2	70.0	41.0	30.0	20.5	54.0	64.0		
San Sebastian.....	97.8	98.1	92.3	50.4	44.4	34.9	57.8	88.7	60.2	41.7	20.7	63.0	73.0		
Armadilla.....	91.8	87.4	70.3	34.7	18.3	18.7	43.3	54.3	30.9	22.2	27.2	58.0	68.0		
Moca.....	89.7	84.4	64.9	32.7	38.3	37.0	51.2	77.3	37.4	32.8	24.0	58.4	68.4		
Isabela.....	87.7	88.0	74.9	38.9	30.0	34.8	56.3	74.1	32.1	34.7	26.8	58.4	68.4		
Quebradillas.....	89.7	87.1	71.9	49.2	38.7	34.9	57.7	73.7	31.0	31.0	21.8	55.0	65.0		
Utrero.....	94.9	90.1	77.3	47.3	42.3	38.3	62.3	77.3	45.0	37.3	30.0	60.0	70.0		
Adunias.....	93.1	91.5	75.7	50.1	41.4	31.0	61.3	75.7	43.0	38.1	26.3	59.4	69.4		
Jayuya.....	93.1	91.5	70.5	35.5	32.0	19.1	50.5	56.0	33.0	25.4	21.5	54.0	64.0		
Camuy.....	93.1	88.0	80.0	40.0	34.0	30.1	59.0	75.7	43.0	35.8	26.0	66.0	76.0		
Hatillo.....	97.3	91.1	73.3	47.0	34.1	28.7	61.3	88.7	42.1	31.7	21.0	60.0	70.0		
Vresno.....	96.3	92.3	81.3	47.3	38.1	33.0	68.0	88.7	45.0	35.1	27.0	55.0	65.0		
Mara.....	93.1	92.0	77.7	42.0	32.0	23.0	58.1	64.0	40.0	30.0	24.0	58.0	68.0		
Barceloneta.....	95.1	91.8	73.3	42.3	30.3	20.0	42.3	68.4	40.0	30.0	24.0	58.0	68.0		
Ciales.....	93.4	91.3	70.0	46.8	40.0	30.0	67.0	70.0	43.0	36.0	26.0	63.0	73.0		
Vega Baja.....	93.4	89.6	70.0	33.0	33.0	20.0	72.0	70.0	43.0	36.0	26.0	63.0	73.0		
Vega Alta.....	97.7	93.7	77.3	47.3	38.4	36.0	67.4	70.1	44.0	36.0	27.0	56.0	66.0		
Corozal.....	93.7	91.7	78.3	41.2	33.1	25.0	51.5	106.0	40.0	36.0	26.0	60.0	70.0		
Moravia.....	94.1	91.0	84.0	41.8	38.1	34.3	52.3	70.0	40.0	35.0	26.0	60.0	70.0		
Tom Baya.....	91.1	90.0	81.0	41.0	37.0	36.3	63.0	68.0	40.0	35.0	26.0	60.0	70.0		
Tor Alta.....	92.1	90.0	77.0	41.0	37.0	30.0	53.8	58.7	40.0	35.0	26.0	60.0	70.0		
Dorado.....	92.1	89.8	76.0	40.0	36.0	30.0	60.0	65.0	40.0	35.0	26.0	60.0	70.0		
Bayamon.....	88.4	88.0	85.9	33.2	31.0	22.1	68.8	72.0	41.0	34.0	26.0	60.0	70.0		
Culebra.....								(2.0)					100.0		
Total.....	94.7	91.3	81.1	44.3	38.3	29.6	57.7	69.7	41.8	35.0	24.0	54.5	63.3		

TABLE VI.—Average number of schools and teachers.

Municipality.	Schools.						Teachers.						
	Secondary schools.	Common schools.					Night.	Total.	Secondary schools.	Common schools.			Total.
		Graded.		Rural.		Total.				In charge of rooms.	Without rooms.	Total.	
		Rooms.	Double enrollment.	Rooms.	Double enrollment.								
San Juan.....	1	87	24	14	7	132	13	151	10	101	7	108	131
Rio Piedras <sup>1</sup> .....	2	20	2	14	14	50	4	56	24	34	2	36	60
Trujillo Alto.....		4	1	7	7	19	3	22		11		11	11
Carolina.....		8	2	16	15	41	6	47		24		24	25
Rio Grande.....	1	8	1	19	12	40	6	47	1	27		27	28
Loiza.....		6	1	15	13	35	6	41		21		21	21
Fajardo.....	1	23	10	20	4	57	7	65	1	43		43	44
Naguabo.....		9	3	14	11	37	8	45		23		23	23
Vieques.....	1	10	3	6	3	22	2	25	1	16		16	17
Humacao.....	1	18	5	26	25	74	14	89	2	44		44	46
Yabucoa.....		8	4	17	15	44	2	46		25		25	26
Maunabo.....		4	2	6	4	16	1	17		10		10	10
Arroyo.....		7	3	9	6	25	2	27		16		16	16
Patillas.....		7	4	14	10	35	3	38		21		21	21
Juncos.....		10	4	9	7	30	5	35		19		19	19
Gurabo.....		6	3	8	5	22	5	27		14	1	15	15
Caguas.....	1	19	6	17	16	58	5	64	2	36		36	38
San Lorenzo.....		7	3	10	10	30	2	32		17		17	17
Guayama.....	1	17	5	17	15	54	4	59	3	34		34	37
Salinas.....		8	4	12	8	32	3	35		20		20	20
Santa Isabel.....		7	2	8	5	22	4	26		15		15	15
Cayey.....	1	14	3	14	12	43	4	48	1	28		28	29
Cidra.....		5	2	8	8	23	2	25		13		13	13
Comerio.....		6	3	8	8	25	4	29		14		14	14
Agua Buenas.....		4	2	7	6	19	4	23		11		11	11
Naranjito.....		2		7	6	15	1	16		9		9	9
Aibonito.....	1	8	3	9	9	29	3	33	1	17		17	18
Barranquitas.....		3	2	8	6	19	1	20		11		11	11
Barros.....		5	2	16	12	35	4	39		21		21	21
Coamo.....	1	11	3	19	19	52	4	57	1	30		30	31
Juana Diaz.....		12	3	31	29	75	10	85		43	1	44	44
Ponce.....	1	80	21	39	27	167	12	182	10	119	2	121	131
Guayanilla.....		5	1	13	13	32	3	35		18		18	18
Penuelas.....		4		9	9	22	3	25		13		13	13
Yauco.....	1	22	5	26	26	79	4	84	1	48		48	49
San German.....	1	13	4	26	16	59	17	77	2	38		38	40
Sabana Grande.....		5		12	10	27	5	32		17	1	18	18
Cabo Rojo.....		10	2	23	18	53	9	62		33		33	33
Lajas.....		5	1	18	14	38	4	42		23		23	23
Mayaguez <sup>2</sup> .....	2	34	9	38	33	114	13	130	15	72		72	88
Maricao.....		5	1	10	10	26	5	31		15		15	15
Las Marias.....		4	1	16	16	37	2	39		20		20	20
Anasco.....		10	3	15	14	42	5	47		25	1	26	26
Rincon.....		2		6	6	14	5	19		8		8	8
Aguada.....		5	1	12	11	29	5	34		17		17	17
Lares.....		10	3	24	20	57	6	63		34		34	34
San Sebastian.....		7	2	22	22	53	6	59		29		29	29
Aguadilla.....		14	6	19	18	57	4	61		33		33	33
Moca.....		5	1	6	6	18	1	19		11		11	11
Isabela.....		6	3	17	15	41	5	46		23		23	23
Quebradillas.....		4	2	9	9	24	5	29		13		13	13
Utuado.....	1	10	3	29	26	68	2	71	1	39	1	40	41
Adjuntas.....		7	2	19	19	47	2	49		26		26	26
Jayuya.....		2		9	9	20	2	22		11		11	11
Camuy.....		5	2	13	12	32	2	34		18		18	18
Hatillo.....		4	1	11	11	27	3	30		15		15	15
Arecibo.....	1	27	10	36	23	96	8	105	5	63	1	64	69
Manati.....	1	15	4	10	5	34	4	39	2	25		25	27
Barceloneta.....		4		9	6	19	2	21		13		13	13
Ciales.....		7	2	20	8	37	6	43		27		27	27
Vega Baja.....		8	3	11	7	29	4	33		19		19	19
Vega Alta.....		5	1	8	5	19	4	23		13		13	13
Corozal.....		4	1	10	10	25	3	28		14		14	14
Morovis.....		4	1	12	11	28	7	35		16		16	16
Toa Baja.....		7	2	9	5	23	3	26		16		16	16
Toa Alta.....		5	1	9	5	20	3	23		14	1	15	15
Dorado.....		3	1	5	1	10	1	11		8		8	8
Bayamon.....	1	22	12	25	19	78	8	87	2	47		47	49
Culebra.....				1	1	2		2		1		1	1
Total.....	21	752	227	1,011	823	2,813	326	73,167	85	1,762	19	1,781	1,881

<sup>1</sup> Including 5 special schools.<sup>2</sup> Including 13 special schools.<sup>3</sup> Including normal and practice schools.<sup>4</sup> Including 1 special school.<sup>5</sup> Including 1 in special school.<sup>6</sup> Including agricultural school.<sup>7</sup> Including 7 special schools.<sup>8</sup> Including 15 in special schools.

TABLE VII.—Teachers at the end of the year classified.

Municipality.		Secondary schools.	Common schools.										Night schools. <sup>1</sup>	Special schools.	Grand total, exclusive of duplicates.
			In charge of grades in graded schools.				Not in charge of grades.				Rural.	Total.			
			English.	English, graded.	Graded.	Total.	Principals and acting principals.	Music and drawing.	Agricultural.	Special.					
San Juan.....	*10	14	64	8	86	5	2			14	107	12	12	128	
Rio Piedras <sup>2</sup> .....	24	10	9		19					14	35	4		59	
Trujillo Alto.....		1	2	1	4					7	11	3		11	
Carolina.....		1	6	1	8			1		16	25	4		25	
Rio Grande.....	1	1	7		8					19	27	6		28	
Loiza.....			5	1	6					15	21	6		21	
Fajardo.....	1	1	19	2	22					20	42	7		43	
Naguabo.....		1	7	1	9					14	23	8		23	
Vieques.....	1		8	1	9					6	15	2		16	
Humacao.....	2	2	15		17					26	43	14		45	
Yabucoa.....		1	6	1	8					17	25			25	
Maunabo.....		2	1		3					6	9			9	
Arroyo.....		1	4	2	7					9	16	2		16	
Patillas.....			6		6					14	20	3		20	
Juncos.....		1	9		10					9	19	5		19	
Gurabo.....			4	1	5				1	8	14	5		14	
Caguas.....	2	3	15	1	19					17	36	4		38	
San Lorenzo.....		1	5	1	7					10	17	2		17	
Guayama.....	3	1	16		17					17	34	3		37	
Salinas.....		1	6		7					12	19	2		19	
Santa Isabel.....		1	6		7					8	15	4		15	
Cayey.....		2	11		13					14	27	4		27	
Cidra.....		1	4		5					8	13	2		13	
Comerio.....		1	3	2	6					8	14	4		14	
Agua Buenas.....			2	1	3					7	10	4		10	
Naranjito.....		1	1		2					7	9	1		9	
Aibonito.....	*1	2	7		9					8	17	3		17	
Barranquitas.....		2	1	3						8	11	1		11	
Barros.....		1	4		5					16	21	3		21	
Coamo.....	1	2	8	1	11					12	20	3		20	
Juana Diaz.....		2	8	2	12			1		30	43	9		43	
Ponce.....	10	15	64	1	80	2				40	122	12	1	133	
Guayanilla.....		1	3	1	5					13	18	3		18	
Pedueles.....		1	3		4					9	13	3		13	
Yauco.....	1	2	18	2	22					27	49	3		50	
San German.....	2	1	12		13					26	39	15		41	
Sabana Grande.....		1	4		5			1		12	18	2		18	
Cabo Rojo.....			8	2	10					23	33	8		33	
Lajas.....		1	3	1	5					16	21	3		21	
Mayaguez.....	*15	4	20	1	24	*1		2		38	74	12	4	93	
Maricao.....		1	3	1	5					10	15	4		15	
Las Marias.....		1	2	1	4					16	20	1		20	
Afasco.....		2	7	1	10			1		16	27	5		27	
Rincon.....			2		2					6	8	3		8	
Aguada.....		1	4		5					12	17	5		17	
Lares.....		1	8	1	10					25	35	6		35	
San Sebastian.....		1	6		7					19	26	5		26	
Aguadilla.....		2	10	2	14					19	33	4		33	
Moca.....		1	3	1	5					6	11	1		11	
Isabela.....		1	4	1	6					17	23	4		23	
Quebradillas.....		1	2	1	4					9	13	4		13	
Utua.....	*1	3	8		11			1		30	42	2		42	
Adjuntas.....		1	6		7					19	26	1		26	
Jayuya.....		1	1		2					10	12	2		12	
Camuy.....		1	3	1	5					13	18	1		18	
Hatillo.....		1	2	1	4					11	15	3		15	
Arecibo.....	4	3	21	3	27	1				26	64	8		68	
Manati.....	*2	4	11	1	16					10	26	4		26	
Barceloneta.....		1	3		4					9	13	2		13	
Ciales.....		1	5	1	7					20	27	6		27	
Vega Baja.....		1	5	2	8					11	19	5		19	
Vega Alta.....		1	3	1	5					8	13	4		13	
Corozal.....		1	3		4					10	14	2		14	
Morovis.....		1	3		4					12	17	7		17	
Toa Baja.....		1	5	1	7					7	14	3		14	
Toa Alta.....		1	3	1	5			1		9	15	3		15	
Dorado.....		1	3		4					5	9			9	
Bayamon.....		2	4	16	22			1		25	49	8		50	
Culebra.....										1	1			1	
Total.....	*83	120	566	60	746	*11	2	7	3	1,008	1,776	*294	17	1,870	

<sup>1</sup> Duplicates.<sup>2</sup> 1 is duplicate.<sup>3</sup> Including normal and practice school.<sup>4</sup> Including college of agriculture.<sup>5</sup> 6 are duplicates.

TABLE VIII.—*Teachers at the end of the year, by sex.*

Municipality.	Secondary schools.			Common schools.					Special schools.			Grand total, omitting duplicates.
	Male.	Female.	Total.	Graded.		Rural.		Total.	Male.	Female.	Total.	
				Male.	Female.	Male.	Female.					
San Juan.....	6	14	10	6	87		14	07	6	6	12	128
Rio Piedras <sup>1</sup> .....	9	15	24	1	20	8	6	35				56
Trujillo Alto.....				3	1	3	4	11				11
Carolina.....				3	6	8	8	25				26
Rio Grande.....		1	1	3	5	11	8	28				28
Loiza.....				3	3	10	5	27				21
Fajardo.....		1	1	8	14	8	12	21				43
Naguabo.....				4	5	7	7	42				23
Vieques.....	1		1	5	4	3	3	23				16
Humacao.....	1	1	2	5	12	13	13	15				45
Yabucoa.....				1	7	5	12	43				25
Maunabo.....				1	2	3	3	25				9
Arroyo.....				5	2	2	7	9				16
Patillas.....				2	4	8	6	20				20
Juncos.....				3	7	5	4	19				19
Gurabo.....				4	2	4	4	14				14
Caguas.....		2	2	4	15	9	8	36				38
San Lorenzo.....				2	5	5	5	17				17
Guayama.....	2	1	3	7	10	8	9	34				37
Salinas.....				3	4	7	5	19				19
Santa Isabel.....				5	2	3	5	15				15
Cayey.....		1	1	7	6	6	8	27				27
Cidra.....				4	1	3	5	13				13
Comerio.....				3	3	5	3	14				14
Aguas Buenas.....				1	2	3	4	10				10
Naranjito.....				2	2	6	1	9				9
Albionito.....	1		1	6	3	4	4	17				17
Barranquitas.....				1	2	4	4	11				11
Barros.....				5		16		21				21
Coamo.....		1	1	2	9	14	4	29				30
Juana Diaz.....				8	5	17	13	43				43
Ponce.....	4	6	10	12	70	10	30	122		1	1	133
Guayanilla.....				1	4	8	5	18				18
Peñuelas.....				3	1	6	3	13				13
Yauco.....		1	1	8	14	11	16	49				50
San German.....		2	2	5	8	6	20	39				41
Sabana Grande.....				2	4	6	6	18				18
Cabo Rojo.....				5	5	11	12	33				33
Lajas.....				2	3	6	10	21				21
Mayaguez <sup>7</sup> .....	10	5	15	11	25	15	23	74	4		4	83
Maricao.....				5	6	6	4	15				15
Las Marias.....				2	2	7	9	20				20
Añasco.....				4	7	5	11	27				27
Rincon.....				2		6	8	8				8
Aguada.....				3	2	1	1	17				17
Lares.....				3	7	10	15	35				35
San Sebastian.....				2	5	8	11	26				26
Aguadilla.....				3	11	11	8	33				33
Moca.....				5	5	4	2	11				11
Isabela.....				4	2	13	4	23				23
Quebradillas.....				4		6	3	13				13
Utua.....	1		1	6	6	14	16	42				42
Adjuntas.....				4	3	10	9	26				26
Jayuya.....				2		7	3	12				12
Camuy.....				3	2	10	3	18				18
Hatillo.....					4	6	5	15				15
Arecibo.....	2	2	4	6	22	17	19	64				68
Manati.....		2	2	3	13	4	6	26				26
Barceloneta.....				2	2	7	2	13				13
Ciales.....				5	2	14	6	27				27
Vega Baja.....				5	3	6	5	19				19
Vega Alta.....				3	2	6	2	13				13
Corozal.....				3	1	3	7	14				14
Morovis.....				4		10	3	17				17
Ton Baja.....				2	5	3	4	14				14
Ton Alta.....				3	3	4	5	15				15
Dorado.....				2	2	4	1	9				9
Bayamon.....	1	1	2	3	21	10	15	49				50
Culebra.....						1		1				1
Total.....	38	46	84	259	509	510	498	1,776	10	7	17	1,870

<sup>1</sup> 1 is duplicate.<sup>2</sup> Including normal and practice school.<sup>3</sup> Duplicate.<sup>4</sup> 2 are duplicate.<sup>5</sup> 5 are duplicate.<sup>6</sup> 7 are duplicate.<sup>7</sup> Including the College of Agriculture.

TABLE IX.—Percentage of total population enrolled in the schools.

Municipality.	Total population, census, 1910.	Total annual enrollment, 1911-12.	Percentage.
San Juan.....	48,716	8,293	17.0
Rio Piedras.....	18,880	2,893	15.3
Trujillo Alto.....	6,345	946	14.9
Carolina.....	15,327	2,545	16.6
Rio Grande.....	13,948	2,407	17.3
Loiza.....	13,317	1,724	12.9
Fajardo.....	21,135	3,526	16.7
Naguabo.....	14,365	2,428	16.9
Viaques.....	10,425	1,383	13.3
Humacao.....	26,678	4,587	17.2
Yabucoa.....	17,338	2,455	14.2
Mamabo.....	7,106	659	9.3
Arroyo.....	6,940	1,267	18.3
Patillas.....	14,448	1,705	11.8
Juncos.....	11,662	1,905	16.3
Gurabo.....	11,139	1,604	14.4
Caguas.....	27,160	3,299	12.1
San Lorenzo.....	14,379	1,610	11.3
Guayama.....	17,379	3,031	17.4
Salinas.....	11,403	1,795	15.7
Santa Isabel.....	6,959	1,287	18.5
Cayey.....	17,711	2,174	12.3
Cidra.....	10,595	1,257	11.9
Comerio.....	11,170	1,304	11.7
Aguas Buenas.....	8,292	997	12.0
Naranjito.....	8,876	752	8.5
Albionito.....	10,815	1,568	14.5
Barranquitas.....	10,503	1,174	11.2
Barros.....	15,028	1,847	12.3
Coamo.....	17,129	2,454	14.3
Juana Diaz.....	29,157	3,624	12.4
Ponce.....	63,444	9,182	14.5
Guayanilla.....	10,354	1,782	17.2
Peñuelas.....	11,991	1,262	10.5
Yauco.....	31,504	3,864	12.3
San German.....	22,143	3,532	16.0
Sabana Grande.....	11,523	1,691	14.7
Cabo Rojo.....	19,562	3,401	17.4
Lajas.....	11,071	1,929	17.4
Mayaguez.....	42,429	6,424	15.1
Maricao.....	7,156	1,413	19.7
Las Marias.....	10,046	1,577	15.7
Afiasco.....	14,407	2,471	17.2
Rincon.....	7,275	974	13.4
Aguada.....	11,587	1,425	12.3
Lares.....	22,650	3,795	17.5
San Sebastian.....	18,904	3,267	17.3
Aguadilla.....	21,419	3,351	15.6
Moca.....	13,640	957	7.1
Isabela.....	16,852	2,250	13.4
Quebradillas.....	8,182	1,324	16.2
Utrero.....	30,775	3,881	12.6
Adjuntas.....	16,954	2,650	15.6
Jayuya.....	10,279	1,302	12.7
Camuy.....	11,342	1,638	14.4
Hatillo.....	10,630	1,327	12.5
Arecibo.....	42,429	5,425	12.8
Manati.....	18,854	2,094	11.1
Barceloneta.....	10,030	1,084	10.8
Ciales.....	18,398	2,663	14.5
Vega Baja.....	12,831	1,861	14.5
Vega Alta.....	8,134	1,415	17.4
Corozal.....	12,978	1,664	12.8
Morovis.....	12,446	1,811	14.6
Toa Baja.....	6,254	1,051	16.8
Toa Alta.....	9,127	1,170	12.8
Dorado.....	4,885	564	11.5
Bayamon.....	29,966	4,464	14.9
Culebra.....	1,315	132	10.0
Total.....	1,118,012	160,657	14.4

## THE UNIVERSITY OF PORTO RICO.

The University of Porto Rico was established by act of the insular legislature of March 12, 1903, as an institution of higher learning to carry forward the work of the public schools which already were showing most satisfactory results in primary and secondary education.

In organizing an institution of this character it seemed wise to give it an entity of its own rather than to make it a part of any existing department of the insular government; and accordingly a board of trustees was made its governing power, but the direct influence of the insular government was maintained by the act requiring that the commissioner of education for Porto Rico be the president of the board of trustees and chancellor of the university and by making the other members of the governing board appointees of the governor of Porto Rico. Subject to these conditions the university is an independent "body corporate" with all the powers usually conferred on an institution of this character.

By this same incorporating act the insular normal school, established in September, 1899, at Fajardo and removed to Rio Piedras in 1901, was transferred from the department of education to the university, together with its entire equipment of land, buildings, and apparatus, thus making it the first department or college of the university.

It so happens that for the first few years of its existence the normal college of the university was its only completely equipped department and its energies were largely devoted to the training of teachers, a work most important and necessary in itself but not the entire object of the organization of the university.

Directly in the rear of the grounds of the normal department the department of education had acquired a farm of about 100 acres, which was transferred to the university shortly after its organization as the site for its college of agriculture, thus giving it a property of 123 acres located at Rio Piedras, some 7 miles from the capital, San Juan.

Accordingly the university began its official existence with these two departments or colleges—the normal college, fully organized and well housed with a complete faculty and some 100 students, and the college of agriculture with no organization or students and little more than an abandoned farm of 100 acres for an equipment.

### THE NORMAL COLLEGE.

The normal college has always been in complete harmony with the public-school system of Porto Rico, accepting students directly from the public schools and offering its graduates positions as teachers under the department of education. At first the course was three years, but was soon changed to four, students being admitted after completing the eighth grade of public-school work. A certificate was given at the end of the second year which entitled the holder to a teacher's license under the department of education, while the graduates of the full four-year course received a principal teacher's license.

At the opening of the year 1910 the entrance requirements were raised to correspond with the increasing efficiency of the public schools, a ninth grade diploma being required, while the four-year course has each year been increased and amplified until at present the course of the normal college compares favorably with similar institutions anywhere in the United States.

The normal college, with its fine equipment and advantages, has always been popular and crowded for room. Additional buildings and apparatus have been added from time to time, but never have they equalled the demand, so that now with an enrollment of about 250 students and a faculty of 25 professors and instructors the greatest need is the same as it has always been—more buildings.

During the year a start was made on a main administration building, which it is expected will cost \$50,000 when completed. The first wing was finished at a cost of \$10,000 and thrown open to the students. This contains two large rooms used, one as an assembly hall and one jointly as a gymnasium for the women students and an

armory for the student battalion. The insular legislature has provided in the appropriation for the year 1912-13 money that can be used for the other wing of this building, to contain several recitation rooms, laboratories, and the normal library; and it is expected this work will soon be started. Plans are already completed.

In addition, the old buildings of the normal college have been extensively remodeled during the past year, giving more room and better appearance.

The normal college occupies four buildings—the assembly hall, already spoken of; the original normal school building, a two-story cement structure, containing, as remodeled, classrooms and laboratories besides the dean's office and general storerooms, erected under the auspices of the department of education; a large rented structure near the normal grounds, in which are located the library of some 7,000 volumes, and the recitation rooms and laboratories of the Spanish, art, and domestic science classes; and the practice school of the normal department, a two-story building, containing nine common-school grades, in which the students of the normal college receive practical instruction in pedagogy.

At the rear of the main building is located a frame structure containing the workshops of the classes in manual training, special attention being given to woodworking and native arts, for which the equipment of machinery is very complete.

Manual training was introduced as a part of the normal course in 1908 and has always had full classes, accommodating annually some 50 students. This is one of the departments that will be generously taken care of in the new buildings.

Athletics have always received full consideration by the board of trustees and faculty of the university, it being felt that a well-developed body was as essential as a well-developed mind, especially in a teacher of youth, and, in consequence, during the past year some 10 acres of land near the normal campus belonging to the university have been graded and fenced for an athletic field. A grandstand and bleachers containing locker rooms have been built, and the university now finds itself possessed of an up-to-date athletic equipment.

The children's memorial to Ramon Baldorioty de Castro, one of the most eminent and patriotic educators of Porto Rico, has been selected, and will take the form of a statue showing his bust on a granite pedestal. The school children of Porto Rico contributed nearly \$2,000 for the erection of this memorial, and the work is now being done by the eminent sculptor, Gonzalez Pola, of Madrid, Spain. The statue will be sent from Spain as soon as completed, and erected on a chosen site in front of the new administration building.

The development of the normal college during the year has been an amplification and improvement of the courses of the previous year, which were found most satisfactory, all advance being in the line of efficiency, the courses in manual training and domestic science receiving special attention.

The work of the normal college will always be the special departmental one of preparing teachers for the public schools of Porto Rico. No broad cultural training is attempted or desired. Its work is always contingent on the grade and demands of the public-school system and its advance is measured by that of the general school system.

#### THE COLLEGE OF LIBERAL ARTS.

To meet the growing demand for a more cultural college course, where some preparation for scientific studies could be obtained, the board of trustees created in 1911 the department or college of liberal arts. This was made easier owing to the high grade of the high schools, of which several had been established and maintained for some time by the Department of Education.

No special equipment or buildings were provided for this college, as it was expected its enrollment would be small, as turned out to be the case, and the equipment of the normal college has been used and the instruction given for the most part by the regular faculty of the latter.

A two-year course is offered students who have high-school diplomas and are planning to train themselves for advanced culture or scientific attainments.

No diplomas or certificates are given to graduates, and in fact the course is not intended to be complete in itself, but only to lead to further study in institutions where degrees are given.

#### THE COLLEGE OF AGRICULTURE.

As previously stated, the college of agriculture began as the second of the present three colleges of the university, being located on the farm of 100 acres to the rear of the normal grounds.



Here for eight years a number of students, varying from 20 to 50, were in attendance studying agriculture and common-school subjects. After several years of work in attempting to bring this department into satisfactory organization with only passable success, owing to the poor condition of the farm and equipment, a new impetus was given the work by the bestowal on the university of the share of Porto Rico of the federal funds appropriated for the use of colleges of agriculture and mechanic arts, known as the Morrill-Hatch funds.

The insular legislature at once made appropriations for the purchase of land and for the construction of a college building at Mayaguez, at the extreme western end of the island, 85 miles from the already established equipment of the University at Rio Piedras.

The land, consisting of about 100 acres, was purchased during the following year. It directly adjoins the United States Agricultural Experiment Station, and it was expected that the students would have for study the use of the already developed grounds of the station in addition to those of the college.

The plans for the building were completed and the work about to begin when difficulties arose regarding the title of the land on which the experiment station was located, and it seemed wise to await settlement of this question before locating the college of agriculture permanently at Mayaguez.

Toward the close of the school year 1909-10 the government won its case, and the board of trustees voted to proceed at once with the construction of the college building and to remove the students to the college of agriculture at Mayaguez at the opening of the next year, the instruction to be given in the Mayaguez high school pending completion of the college building.

No attempt to obtain a large enrollment for the college of agriculture for the year just ended was made, but the best 15 students at the Rio Piedras institution continued their studies at Mayaguez.

The work on the building to cost \$30,000 was started and has been rapidly pushed during the year, so that the college will be thrown open to students in September, 1912.

Meanwhile efforts were directed toward obtaining a competent faculty, and after careful consideration a dean and nine professors were, about January 1, 1912, engaged as the nucleus of the faculty of the college of agriculture.

This faculty has been employed during the last part of the fiscal year in arranging for the educational equipment and in teachers' institutes throughout the island, whereby primary instruction in agriculture and allied arts has been brought home to the teachers of the public-school system, and at the same time a general interest and enthusiasm for agricultural instruction have been stirred up, something which formerly has been entirely lacking among the general public.

As a result of these efforts all signs point to a large enrollment in the college of agriculture for the year 1912-13.

A full five-year undergraduate course of study has been arranged, accepting as entrance requirements the diploma of the eighth grade of the public schools.

Special courses of one or two years and short courses of one or two weeks on special subjects will be given.

A biological laboratory for experimental study and investigation is now being equipped and everything points to a most prosperous future for this college.

#### SUMMER SESSIONS.

The university for several years has maintained each summer a summer session of eight weeks at the normal department, in which, roughly, 400 students have been enabled to briefly review the work of the year, the attendance being made up chiefly of teachers of the department of education, who take this opportunity to prepare themselves for better work.

The summer session will be continued this year, and summer sessions of the college of agriculture will be conducted for special instruction in agricultural lines.

#### CADET BATTALION.

Military instruction is required of all undergraduate students of all colleges of the university. The cadet battalion of the university was organized in the latter part of 1910-11, but was not properly equipped until the beginning of the year just passed. The battalion, consisting of 135 cadets, has been in charge of a retired officer of the United States Army, assigned to the university by the War Department. Headed by its own band, the cadets have been commended for their soldierly appearance, good drill, and behavior.

The cadet major, at the commencement exercises in June, 1912, was appointed a colonel on the staff of the governor of Porto Rico, a position of considerable honor.

*Total enrollment of the University of Porto Rico for the year 1911-12.*

	Teachers.		Regular term.		Summer session.	
	Men.	Women.	Men.	Women.	Men.	Women.
Practice school.....		11	188	234	65	80
Colleges.....	18	16	76	134	145	254
Total.....	18	27	263	368	210	334

Total, 1,219.

#### AIMS AND RECOMMENDATIONS.

It has been the constant aim of all university endeavor to build up an organization of true university rank that should carry out two main objects.

The first is the giving to Porto Rico such higher instruction as may be necessary and desirable locally. In this endeavor the normal college was the first and most necessary, and the college of agriculture seems now just about entering its sphere of usefulness. There is some demand for more technical schools, and already there has been some consideration of the idea to open a college of medicine or a laboratory for the study of tropical diseases, and also a mechanical arts college, where instruction in engineering, both mechanical and electrical, can be given thoroughly. It seems as if both of these departments were near at hand, and the university only awaits more buildings before being in a position to install them.

The second aim of university endeavor is to create in Porto Rico a university that will bring together the English-speaking northerners with the Spanish-speaking southerners on a common ground; nothing more nor less than the much-talked-of Pan American University. Certainly the location of Porto Rico is most unexceptional for this purpose, and the carrying out of these aims rests solely with the University of Porto Rico.

The present grade of work in the colleges of the university is as high and as complete as local conditions warrant.

The land provided is ample for years to come, and the 123 acres at Rio Piedras, which are most ideally situated for the purpose, will permit the establishing of more colleges as they are needed, so that the final, as well as the first need of the university, is more buildings, and still more buildings.

At Rio Piedras the \$50,000 administration building, before mentioned, should be completed and arrangements perfected for another building for trade-school purposes, to cost \$30,000.

Two large dormitories, one for the male and one for the female students, and costing about \$30,000, each are badly needed. With this new equipment the university would be able to establish the new departments needed and to properly take care of students for several years to come.

As it is practically impossible to obtain sufficient funds to build at once all that is needed, it is recommended that the legislature appropriate to a general building fund for the university as large a sum as can be devoted for this purpose each year, and that the actual construction work be pushed forward by the board of trustees in accordance with the plan already adopted as fast as the money is available.

#### TREASURER'S REPORT.

The university receives its support in general from the insular government.

The insular legislature in the act chartering the university provided that a certain portion of the money received by the courts of Porto Rico should go to form a fund for its general expenses, and in its annual budget has always liberally provided for the special objects, such as support of the normal department, scholarships in the normal department, construction of new buildings, etc.

In addition to these purely local sources the university receives the share for Porto Rico of the funds provided by the Federal Legislature for the support and maintenance of colleges of agriculture and mechanical arts known as the Morrill-Hatch funds.

The total annual receipts from all sources are approximately \$150,000, which is being spent about equally between the college of agriculture at Mayaguez and the

normal department and college of liberal arts jointly at Rio Piedras. The yearly balance sheet and statement follows:

*University of Porto Rico, 1911-12.*

GENERAL BALANCE SHEET.

July 1, 1911, balance.....	\$139,070.78
Cash receipts.....	78,138.59
Appropriations, insular legislature.....	63,465.00
<b>Total.....</b>	<b>280,674.37</b>
Appropriations charged off.....	7,277.00
Expenses, by vouchers.....	112,661.47
Expenses, by check.....	4.50
Investment, by vouchers.....	39,363.13
Balance on hand June 30, 1912.....	121,428.27
<b>Total.....</b>	<b>280,674.37</b>
<b>Expense accounts:</b>	
Normal department.....	70,332.12
University farm.....	15,171.85
College of agriculture.....	22,446.37
College of liberal arts.....	1,280.00
Military department.....	155.51
Administration department.....	3,275.62
Memorial fund.....	4.50
<b>Total.....</b>	<b>112,665.97</b>
<b>Investment accounts:</b>	
Textbooks.....	1,638.79
Library books.....	1,006.94
Furniture and fixtures.....	2,850.83
Machinery and tools.....	1,236.18
Laboratory equipment and apparatus.....	3,524.12
Live stock.....	1,075.45
New buildings and athletic field.....	27,970.82
<b>Total.....</b>	<b>39,303.13</b>

## APPENDIX VI.

### REPORT OF THE ATTORNEY GENERAL.

OFFICE OF THE ATTORNEY GENERAL, SAN JUAN, P. R.,  
*August 16, 1912.*

SIR: Since the date of the last annual report of the department of justice, September 22, 1911, Foster V. Brown, the then attorney general, has retired, having left Porto Rico on March 13, 1912. The present attorney general was appointed during the second week in April, and assumed the duties of his office April 25, 1912. He has served, therefore, a little over two months of the fiscal year ending June 30, 1912. As it seems not to have been the practice of the department of justice to compile its annual report step by step as the fiscal year proceeds, and as the time elapsing between my arrival and the date of this report has been too brief to enable me to obtain a comprehensive view of conditions in a place showing the originality and the unusual and interesting characteristics that Porto Rico exhibits, the present report will be fragmentary, and will not attempt to deal generally with the conditions and needs of the department of justice with which its author is not as yet familiar.

Justice is administered in Porto Rico through:

#### PEACE COURTS.

There are at present 59 justices of the peace courts, each presided over by a justice of the peace appointed by the governor, by and with the consent of the Executive Council, for an indefinite term.

The original jurisdiction of justices of the peace extends to all criminal cases in which the punishment may not exceed a fine of \$15 or imprisonment for 30 days, to all cases of violations of municipal ordinances, and to the offense of carrying concealed weapons, except in certain cases. It is also their duty to act as examining and committing magistrates during the absence of the municipal judges.

Justices of the peace have no civil or appellate jurisdiction.

#### MUNICIPAL COURTS.

There are 32 municipal courts, each presided over by a municipal judge chosen by popular election, for terms of four years; subject, however, to removal at any time by the governor for cause shown.

They have exclusive original jurisdiction in all civil matters involving not more than \$500, including interest, and nonexclusive in all criminal cases except that of felony. In all felony cases they may act as committing magistrates and fix bail under the law. Municipal judges have no appellate jurisdiction.

#### DISTRICT COURTS.

Porto Rico is divided into seven judicial districts: San Juan, Arecibo, Mayaguez, Ponce, Humacao, Guayama, and Aguadilla, in the principal city of each of which is located a district court.

Each of these district courts, except that of San Juan, is presided over by one district judge. The district court of San Juan is divided into two sections, each having its own district judge. There are, therefore, in all, eight district judges who are appointed by the governor, by and with the consent of the Executive Council, for terms of four years.

The district courts, which are courts of general jurisdiction, have original jurisdiction: (a) In all civil cases in which the amount involved exceeds \$500, including interest; (b) in all criminal cases—their jurisdiction in felony cases being exclusive, and in misdemeanor cases concurrent with that of the municipal courts; (c) to grant writs of habeas corpus in all cases in which such writs are grantable by the judges of the district and the former circuit courts of the United States; (d) to issue writs of prohibition, of certiorari, and of mandamus; incidentally writs and orders necessary and proper in their appellate jurisdiction.

They have appellate jurisdiction: (a) In all civil cases where a judgment finally disposing of the case has been rendered by the municipal court. The trial on appeal is *de novo*; (b) in criminal cases from final judgments of the municipal courts as well as from final judgments of justices of the peace. The appeal in criminal cases must be taken by the defendant, and upon it a trial is had *de novo*.

#### THE SUPREME COURT.

This court is presided over by a chief justice, and there are four associate justices, all appointed for an indefinite term by the President, by and with the advice and consent of the Senate. It is a court of appeals, and is not confined in its deliberations either in civil or criminal cases to errors of procedure or of law, but may take cognizance of all the facts and proceedings in the case as they appear in the record, and may consider the merits thereof so as to promote justice and right and prevent injustice and delay.

The supreme court has original jurisdiction: (a) To grant writs of habeas corpus in all cases in which they are grantable by judges of the district and former circuit courts of the United States; (b) to issue writs of prohibition, of certiorari, of mandamus, and incidentally writs and orders necessary and proper in its appellate jurisdiction; (c) to try and adjudicate all questions between the Roman Catholic Church in Porto Rico and the people of Porto Rico affecting property rights claimed by either party, and between the Roman Catholic Church in Porto Rico and any municipality of Porto Rico affecting property rights claimed by either party. All disbarment proceedings must be instituted before this court.

It has jurisdiction on appeal in civil cases (a) from final judgments in actions or special proceedings in the district courts; (b) from judgments rendered by the district courts on appeal from inferior courts, where the amount involved exceeds \$300; (c) from orders granting or refusing new trials, refusing to grant or dissolve an injunction, dissolving or refusing to dissolve an attachment, granting or refusing to grant a change of the place of trial, from any special order made after final judgment, from interlocutory judgments in actions for partition of real property; (d) from decisions of registrars of property refusing, either absolutely or provisionally, to record or to give its full legal effect to any document which he is required by law either to record or to enter.

In criminal cases an appeal may be taken by the defendant from the district court from a final judgment of conviction; from an order denying a new trial, or from an order made after judgment affecting the substantial rights of the party. An appeal may be taken in such cases by the People of Porto Rico from an order setting aside the information; from a judgment by the defendant on demurrer; from an order granting a new trial, or from an order arresting judgment of an order made after judgment affecting the substantial rights of the people.

In every case in which the sentence of death has been pronounced by the district court, the law makes it the duty of the attorney for the defendant to take proper appeal to the Supreme Court; and if he fails to do so, it is made the duty of the district judge to prepare and certify to the Supreme Court a statement of the evidence submitted to the jury.

Writs of error and appeals from the final judgments and decrees of the Supreme Court of Porto Rico may be taken to and prosecuted in the Supreme Court of the United States in any case wherein is involved the validity of any copyright, in which is questioned the validity of a treaty or statute of, or authority exercised under, the United States, or wherein the Constitution of the United States, or a treaty thereof, or an act of Congress is brought in question, and the right claimed thereunder is denied, without regard to the sum or value of the matter in dispute, and in all cases in which the sum or value of the matter in dispute, exclusive of costs, to be ascertained by the oath of either public or other competent witnesses, exceeds the sum or value of \$5,000. Such writs of error and appeals shall be taken within the same time, in the same manner and under the same regulations as to the Supreme Court of the United States from the district courts.

#### DISTRICT COURT OF THE UNITED STATES FOR PORTO RICO.

Porto Rico constitutes a judicial district. Regular terms of court are held commencing the second Monday in April and October of each year at San Juan, and the second Monday in January of each year at Ponce, special terms being held at Mayaguez at such other times as the judge may deem expedient.

All proceedings are required to be in the English language.

The judge is appointed by the President, by and with the advice and consent of the Senate, for a term of four years.

In addition to the ordinary jurisdiction of district courts of the United States, the District Court for Porto Rico has jurisdiction in all cases formerly cognizant in the circuit courts of the United States, and the laws of the United States relating to appeals, writs of error and certiorari, removal of causes, and other matters and proceedings as between the courts of the United States and the courts of the several States, govern in such matters and proceedings as between the district court and the insular courts of Porto Rico.

In addition to the foregoing, it also has jurisdiction in all civil cases wherein the parties or either of them are citizens of the United States, or citizens or subjects of a foreign State or States, and the matter in dispute exceeds, exclusive of interests or costs, the sum or value of \$1,000.

The jurisdiction in the matter of writs of error and appeals from the final judgments and decrees of the District Court of the United States for Porto Rico taken to and prosecuted in the Supreme Court of the United States is the same as that of the Supreme Court of Porto Rico in criminal cases.

#### THE ATTORNEY GENERAL.

The attorney general is appointed by the President, by and with the advice and consent of the Senate, for a period of four years.

His powers and duties are the same as those provided by law for an attorney of a Territory of the United States in so far as the same are not locally inapplicable. He exercises general supervision over the administrative affairs of the several courts of the island and may require from them such reports relating to their internal administration as he may deem necessary. He is the legal representative of the people of Porto Rico in all suits, civil and criminal, to which they are a party. It is his duty to investigate and report upon applications for pardon submitted to him by the governor for that purpose, and to give his opinion in writing to the legislative assembly, to either house thereof, to the governor, or to the heads of any of the governmental departments, when requested by them, upon any question of law relating to their respective offices. He is also required to render an annual report to the governor on or before the 1st of October of each year as to the condition of affairs in his department.

#### FISCALS.

*Fiscal of the supreme court.*—The fiscal of the supreme court is appointed by the governor, by and with the advice and consent of the Executive Council, for a term of four years.

It is his duty to represent the People of Porto Rico in all criminal appeals and in all civil cases pending in the supreme court in which they are interested. He has all the powers of a regular district fiscal and is required by law to perform such other duties as may be assigned to him by the attorney general.

*Special fiscal for the island at large.*—A special fiscal at large is appointed by the governor, by and with the advice and consent of the Executive Council, for a term of four years.

He may act in place of or assist any regular district fiscal in the performance of his duty when authorized by the attorney general, and perform such other duties as may be assigned to him by the attorney general.

*District fiscals.*—There is one regular district fiscal for each of the seven judicial districts, who are appointed by the governor, by and with the advice and consent of the Executive Council, for a term of four years.

It is his duty to prosecute in his district all delinquents for crimes and offenses under the laws of Porto Rico and all civil actions in which the people of Porto Rico are concerned, and to perform such other duties as the attorney general may impose upon him.

*Assistant fiscal for the district of San Juan.*—In the judicial district of San Juan the district fiscal is given an assistant known as the assistant fiscal for the district of San Juan, who is appointed by the attorney general for a term of four years. He has all the powers and performs all the duties of a regular district fiscal and such others as may be assigned him either by the attorney general or the district fiscal of San Juan.

#### REGISTRARS OF PROPERTY.

There are nine registries of property located, respectively, at San Juan, Ponce, Mayaguez, Arecibo, Humacao, San German, Aguadilla, Guayama, and Caguas, that at San Juan being divided into two sections.

Each registry is in charge of a registrar of property and each section of the registry in San Juan is in charge of its own registrar. They are appointed by the governor

for indefinite terms of office from a list of eligibles obtained by competitive examination. Where a vacancy occurs it is by law made the duty of the attorney general to publish notice of this fact, and if any of the registrars in charge of other registries apply for appointment to fill the vacancy the governor may transfer one of them.

The registrars have charge of the several registries of property and custody of the registry books, and it is their duty to record documents entitled to record and to make annotations and entries in relation to deeds, decrees, mortgages, satisfaction of mortgages, or other documents.

Appeal may be taken to the Supreme Court of Porto Rico from the decisions of the registrars of property.

#### SUPREME COURT.

The supreme court disposed of 230 appeals, 89 in criminal and 141 in civil cases, leaving pending on its criminal calendar on June 30, 1912, only 10 appeals, as compared with 11 on June 30, 1911. In addition it disposed of 24 appeals from decisions of the registrars of property, and in the exercise of its original jurisdiction of 29 proceedings, including applications for writs of certiorari, mandamus, inhibition, and habeas corpus, and 1 case of contempt and 1 disbarment proceeding.

The People of Porto Rico were interested in 91 of the appeals disposed of by the supreme court, of which 89 were in criminal cases in which the People of Porto Rico was the appellee, and 2 were in civil cases. Of the former, 8, including 1 in which the appellant died pending appeal, were dismissed without argument; in 72 the judgment of the district court was affirmed upon argument, and in 10 only were the district courts reversed.

#### DISTRICT COURTS.

The district courts, as shown in Tables B and F, disposed of 2,177 criminal cases—felonies and misdemeanors—and 2,876 civil, leaving pending on their calendars on June 30, 1912, 421 criminal cases, as against 682 on June 30, 1911, and 2,666 civil, as against 2,176 on June 30, 1911. In all the district courts, except those of Humacao and Ponce—in which changes occurring in the office of fiscal necessarily delayed somewhat the transaction of the criminal work—the condition of the criminal calendars was materially improved.

It appears from Table B that the district court of San Juan was by far the most active criminal court in Porto Rico in the number of criminal cases disposed of and of new ones instituted during the year, both being more than double those of any of the other courts. Next to the district court of San Juan in the amount of criminal business handled followed the district court of Ponce, which, however, as is shown in Table B, fell behind both Humacao and Guayama in the number of criminal cases disposed of by trials and pleas. The number of criminal cases disposed of in the court of Guayama, covering a district having a population of only 106,753, was practically the same as that of the courts of Ponce and Humacao, having populations of 195,561 and 170,923, respectively. A glance at Table E shows that the disproportionately large share of criminal business handled by the Guayama court was due largely to an unusual number of prosecutions for assault and battery, breach of the peace, and frauds against public justice.

#### JURY TRIALS.

Under the law in Porto Rico a person against whom an information is lodged in the district court for a crime the penalty for which is capital punishment or two years or more confinement in any penal institution of the island has the right to demand trial by a jury. In accordance with this law there were 274 jury trials, of which 184 resulted in convictions and 90 in acquittals, the general average of conviction being a little more than 67 per cent. However, it will be seen by referring to Table D that the jury in Ponce returned verdicts of guilty in only 8 out of 27 trials—an average of 29.4 per cent, while the Guayama jury convicted in 38 cases out of 47, an average of over 80 per cent. While a general average of conviction of 67 per cent in jury trials for felony is high, it is not believed that it affords a safe basis for comparison with the work of juries in places where, as in most of the United States, a jury trial in felony cases is not only a matter of right but of necessity, since it is fairly well established that where a choice is permitted to the accused he is more likely to select a jury trial when the case against him is a strong one.

#### CIVIL BUSINESS.

Turning to Table F, one is impressed by the fact that every district court ran behind in the discharge of its civil business, the calendars of June 30, 1912, showing 2,666 cases

pending, as compared with 2,176 on June 30, 1911, and is led to ask whether the admitted efficiency of the district courts in the discharge of criminal matters was not at the expense of their civil calendars. In the absence of complete statistics running over a number of years it is obviously impossible to answer this question. In considering the responsibility of the courts for this condition, however, it should be borne in mind that, while an active, energetic judge can do much toward preventing delays in civil matters, the conduct of criminal business is much more nearly within the control of sworn public officers than that of civil litigation, in which both parties are represented by private attorneys. It should also be borne in mind that so long as population continues to grow, and so long as legislatures continue to operate their mills for the production of new laws, litigation will multiply until inevitably the facilities of the courts will have to be correspondingly increased.

#### THE FISCALS.

The fiscals, or prosecuting attorneys, discharge a part of the functions ordinarily confided to grand juries. They sift the evidences on complaints in criminal cases, whether brought to their attention in the first instance or sent to them from the municipal or peace courts, who, acting as committing magistrates, have held the accused for disposition by the fiscal, by either filing an information in the nature of an indictment in the district court or dismissing the complaint.

They are also charged with the duty of representing the people in criminal cases tried in the district courts on appeal from the municipal and peace courts.

Reference to Table G shows that there were handled and passed upon in one way or another in the fiscalas 1,958 complaints in criminal cases. Of these 958 were dismissed by the fiscals without the filing of an information, and 1,000, or 52 $\frac{1}{2}$  per cent, resulted in the filing of informations in the district courts. The latter includes all informations filed by the fiscals in the district courts, whatever their final disposition may have been. A closer examination of Table G shows that the percentage of complaints which received the official approval of the fiscals varied considerably in different parts of the island. In Ponce only 178 out of 460 complaints lodged with the fiscal—about 38 $\frac{1}{2}$  per cent—were finally entertained by him, while in Guayama they numbered 123 out of 184, a little over 66 per cent. Just how far these striking differences in results are explainable it is impossible to say without a deeper study of local conditions and a more careful perusal of the figures extending over a period of years than there has been either time or opportunity to make. Many of the dismissals of complaints by the fiscals without filing informations in court were brought about by the marriage of the interested parties in seduction cases while the complaints were under investigation. In Ponce 67 of the dismissals ordered by the fiscal were of this nature.

Table G shows that of 1,014 appeals from the municipal and peace courts, handled by the fiscals, convictions resulted in 602, or about 59 $\frac{1}{2}$  per cent. In this respect also the percentage of conviction was by no means uniform in the different districts, varying from 50 and 51 $\frac{1}{2}$  per cent for Aguadilla and Ponce to 65 $\frac{1}{2}$  per cent for Mayaguez.

#### THE LOWER COURTS.

The municipal courts disposed of 30,310 criminal and 3,181 civil cases, falling behind somewhat in criminal and seriously in civil business. The transactions of the various municipal courts are shown in Tables H and I, and it is noteworthy that, in accomplishing such an amount of business, appeals were taken from the judgments of the municipal courts in only 842 criminal and 174 civil cases. The data are, unfortunately, defective in failing to give the exact disposition and status of these appeals.

Information showing generally the work performed by the peace courts is lacking. However, Table J has been compiled from the records of the district courts and of the offices of the fiscals to show the exact disposition of all appeals in criminal cases taken from the judgments of both the municipal and peace courts and decided by the district courts.

#### APPLICATIONS FOR PARDON, LIBERTY ON PAROLE AND COMMUTATION OF SENTENCE.

Ninety-four such applications as shown in Table K were passed upon during the year in the office of the attorney general, and as a result pardons were granted in 11 and sentence was wholly or in part remitted in 4 cases. In no case was the prisoner admitted to liberty under parole. Pardons were granted as shown in Table L in one case of involuntary manslaughter, in one of assault and battery, in two of embezzlement, and in seven of petit larceny, all of the latter in favor of prisoners serving in the



**Reform School.** The above appears to indicate, possibly, that the law providing for the admission of prisoners to liberty under parole is not receiving the attention it deserves. It is believed that this law ought to serve a more useful purpose in freeing the People of Porto Rico from the burden of supporting prisoners who have given reasonable assurance, by their conduct and attainments in prison, that they do not belong to the hopelessly depraved classes and that they are capable of supporting themselves like respectable, law-abiding citizens. It is thought that a broad and liberal construction by the executive power under the parole law is not in anywise inconsistent or in conflict with the sentencing power of the courts. In fact, it has been intimated to me, by several of the judges of the district courts, that if they could feel assured when imposing sentence that, within a reasonable period, the prison conduct of the accused would be carefully and thoroughly reviewed in connection with the history of his crime, they would feel much freer to impose upon the accused the sentences which, in their opinion, the crimes justified. One reason why the parole law has not been more useful is that owing sometimes to the death or absence of the judge or fiscal, or both, who officiated at the trial at the time when the application for parole was made, it was practically impossible to get any enlightening data on the case other than the statements of the warden of the penitentiary or prison institution in which the accused had been confined. This defect is one which can not, in the nature of things, be remedied all at once. I am instituting a practice, however, which I believe will be helpful in the future, of having district judges and fiscals render a report to this office immediately after the conviction of every person tried in their courts for use when the question of parole comes up.

#### DISTRICT COURT BUILDINGS.

Analyses of present conditions and recommendations for changes are in this report confined to the methods and conditions of housing the district courts, because the time at my disposal has been too brief to enable me to obtain a comprehensive view thereof as to municipal and peace courts.

The district courts of Ponce and Arecibo are located in buildings owned by the people of Porto Rico; those of San Juan and Mayaguez in buildings owned by the Federal Government and used by the insular Government under agreement, and those of Guayama, Humacao, and Aguadilla in quarters leased from private parties.

It is generally agreed that the district courts, representing, as they do, before the people the central judicial system of Porto Rico, to which all of the people turn in the first instance for the settlement of their more important legal disputes and in whose integrity and ability they rely for the final review of most matters in which they feel aggrieved by the action of the lower courts, should be appropriately and adequately housed. While there is no dispute regarding this general proposition, and while the conscious aim of the insular government has been to bring about its fulfillment, it may not be out of place to refer again to the manifest advantage, from the point of view of the rational development of law-respecting ideals, of housing these courts in quarters appropriate, adequate, and dignified, and under the outright ownership of the people of Porto Rico.

A bill is now pending in Congress which has for its object the bringing about of such exchanges of property between the Federal Government and the people of Porto Rico as will transfer to the people the buildings now used by the district courts of San Juan and Mayaguez.

Provision has been made by appropriation, subject to report by the finance committee, that funds are available for the erection at Guayama of a public building in which the district court will be quartered. This provision will be referred to further later on. The building used at present for the Guayama district court, which seems to be practically the only leasable building available, is cramped and inadequate. The only room available during the last year for the deliberations of the jury was a small one, practically uninhabitable when closed, and impossible to protect adequately against the intrusions of an inquisitive or malicious public during the deliberations of the jury upon the outcome of felony trials. Temporarily to alleviate this condition, it has been found possible, out of funds available from appropriations for the district court of Guayama, to construct upon the roof of the building now used a cheap temporary structure for occupancy by the jury during its deliberations. The relief afforded by this extension is in no sense complete or satisfactory, as the roof of the building is reached only by a dark, narrow, and almost precipitous staircase. The necessity of a new public building at Guayama is a pressing one, and while there are, doubtless, at this time, other matters which should rightfully receive the earlier sanction of the finance committee, this need is one which ought not to be forgotten or indefinitely shelved.

Conditions in the leased building used by the district court of Humacao, although not constructed for a courthouse and in many ways inadequate, are somewhat better.

In Aguadilla the building at present leased and used by the district court is positively dangerous. It suggests instability, as there are places where one could easily put one's foot through the floor, and is so small that practically all of its appointments make one think of a courthouse in Lilliput. As leased buildings go, it is practically the best available but should be replaced by an adequate insular building at the earliest practicable date.

#### INSANITY CASES.

Act No. 26, passed at the last session of the legislature on March 7, 1912, gave to the municipal courts jurisdiction in lunacy cases. Prior to this enactment jurisdiction had been exercised only by the district courts with the aid of juries. Whether or not the legislation in question was wise, whether or not it was justified by the increase in Porto Rico of dangerous forms of insanity among persons whose relatives or friends lacked the will or the ability to provide for them, the law has undoubtedly by increasing the facility with which such proceedings are instituted and effectuated without increasing or providing for the increase of facilities available for the care of the indigent or friendless insane, aggravated intensely the evils resulting from an already inadequate provision for the public care of insane persons. To this condition the Department of Justice, charged as it is with the duty of representing the interests of the people in lunacy proceedings, can not close its eyes. During the last three months of the year I am advised by the department of labor, charities, and correction that 30 persons found insane by the municipal courts were denied access to the insane asylum because that institution was overcrowded. During the same period there became available in the insane asylum for the reception of such persons an average of 6½ places per month, showing that the number of those condemned as insane and seeking access to the insane asylum and unable to obtain it increased by an average during those three months of 3½. These unfortunate persons, whose friends or relatives are unable or unwilling to give them the necessary protection, and who are unable to obtain entrance to the only institution in the island fitted for their care and protection, are confined in various parts of the island in the municipal and district jails, which, generally speaking, are provided with only one type of quarters in which dangerously insane persons can be kept separate from the other prisoners. These are the punishment cells, which are usually dark, insanitary, and, of course, wholly unsuited to the extraordinary use to which they are put.

Respectfully submitted.

WOLCOTT H. PITKIN, Jr.,  
Attorney General of Porto Rico

The GOVERNOR OF PORTO RICO,  
San Juan, P. R.

TABLE A.—Cases disposed of in the Supreme Court of Porto Rico during the fiscal year 1912, and those pending therein June 30, 1911, and June 30, 1912.

#### APPEALS IN CRIMINAL CASES.

Pending June 30, 1911.....	11
Presented during fiscal year 1912.....	88
Total.....	99
Disposed of during fiscal year 1912:	
Affirmed.....	71
Dismissed.....	7
Reversed.....	10
Dismissed (owing to death of appellant).....	1
Total.....	89
Pending June 30, 1912.....	10
Total.....	99

## APPEALS IN CIVIL CASES.

Pending June 30, 1911.....	33
Presented during fiscal year 1912.....	155
Total.....	188
Disposed of during fiscal year 1912.....	141
Pending June 30, 1912.....	47
Total.....	188

## ADMINISTRATIVE APPEALS.

(From decisions of registrars of property.)

Pending June 30, 1911.....	2
Presented during fiscal year 1912.....	22
Total.....	24
Disposed of during fiscal year 1912:	
Affirmed.....	15
Reversed.....	8
Dismissed.....	1
Total.....	24

## ORIGINAL JURISDICTION.

Pending June 30, 1911:	
Certiorari.....	1
Presented during fiscal year 1912:	
Certiorari.....	16
Mandamus.....	1
Writs of inhibition.....	1
Habeas corpus.....	8
Contempt of court.....	1
Disbarment.....	1
Total.....	29
Disposed of during fiscal year 1912:	
Certiorari.....	17
Mandamus.....	1
Writs of inhibition.....	1
Habeas corpus.....	8
Contempt of court.....	1
Disbarment.....	1
Total.....	29

## RÉSUMÉ.

Cases pending June 30, 1911:	
Criminal appeals.....	11
Civil appeals.....	33
Administrative appeals.....	2
Original jurisdiction.....	1
	47
Cases presented during fiscal year 1912:	
Criminal appeals.....	88
Civil appeals.....	155
Administrative appeals.....	22
Original jurisdiction.....	28
	193
Total.....	240

## Cases disposed of during fiscal year 1912:

Criminal appeals.....	89
Civil appeals.....	141
Administrative appeals.....	24
Original jurisdiction.....	29
	<hr/> 183

## Cases pending June 30, 1912:

Criminal appeals.....	10
Civil appeals.....	47
	<hr/> 57

Total..... 240

TABLE B.—Criminal business—district courts—fiscal year 1912.

District court of—	Pending June 30, 1911.	Presented by filing information and by appeal from municipal and peace courts.	Pending June 30 1912.	Disposed of by—					Appeals taken.
				Trial.	Plea.	Filing or dismissal.	Transfer to other courts.	Total.	
San Juan.....	402	750	147	490	307	208	.....	1,005	44
Ponce.....	64	305	107	144	56	59	3	262	6
Guayama.....	115	223	78	165	37	58	.....	260	13
Humacao.....	37	261	40	143	67	27	1	238	7
Mayaguez.....	30	202	20	140	58	13	1	212	12
Aguadilla.....	21	102	19	65	30	9	.....	104	4
Arecibo.....	13	73	10	59	10	7	.....	76	.....
Total.....	682	1,916	421	1,206	585	381	5	2,177	86

## RÉSUMÉ.

Pending June 30, 1911.....	682
Presented by filing information and by appeals from municipal and peace courts.....	1,916
Total.....	<hr/> 2,598
Total disposed of during fiscal year 1912.....	2,177
Trial.....	1,206
Plea.....	585
Filing or dismissal.....	81
Transfer to other courts.....	5
Pending June 30, 1912.....	<hr/> 421
Total.....	<hr/> 2,598

TABLE C.—Cases of homicide disposed of by the district courts during fiscal year 1912.

District court of—	Total cases of homicide disposed of.			Murder.				Manslaughter.				Murder in general. <sup>1</sup>
				First degree.		Second degree.		Voluntary.		Involuntary.		
	Con- victions.	Ac- quittals.	Total.	Con- victions.	Ac- quittals.	Con- victions.	Ac- quittals.	Con- victions.	Ac- quittals.	Con- victions.	Ac- quittals.	
San Juan.....	11	5	16	2	.....	3	1	5	3	1	1	.....
Humacao.....	10	2	12	3	.....	3	1	2	1	2	.....	.....
Guayama.....	7	3	10	.....	.....	1	.....	6	2	.....	.....	1
Mayaguez.....	9	.....	9	3	.....	1	.....	5	.....	.....	.....	.....
Ponce.....	5	2	7	.....	1	1	.....	3	.....	1	1	.....
Aguedilla.....	5	2	7	.....	.....	.....	.....	5	1	.....	1	.....
Arecibo.....	2	1	3	.....	.....	1	.....	.....	.....	1	1	.....
Total.....	49	15	64	8	1	10	2	26	7	5	4	1

<sup>1</sup> Cases in which the degree of murder charged is not specified in the information.

## RÉSUMÉ.

Total cases of homicide disposed of.....	64
Convicted:	.....
Murder in first degree.....	8
Murder in second degree.....	10
Manslaughter, voluntary.....	26
Manslaughter, involuntary.....	5
.....	49
Acquittals:	.....
Murder in first degree.....	1
Murder in second degree.....	2
Manslaughter, voluntary.....	7
Manslaughter, involuntary.....	4
Murder in general.....	1
.....	15
Total.....	64

TABLE D.—Jury trials in the district courts during fiscal year 1912.

District court of—	Number of trials.	Convictions.	Acquittals.
San Juan.....	69	44	25
Humacao.....	51	39	12
Guayama.....	47	35	9
Mayaguez.....	32	21	11
Aguedilla.....	31	22	9
Ponce.....	27	8	19
Arecibo.....	17	12	5
Total.....	274	184	90

TABLE E.—District courts—Classified table of cases disposed of, by convictions and acquittals, during fiscal year 1912.

Offenses.	San Juan.		Humacao.		Guayama.		Ponce.		Mayaguez.		Aguadilla.		Arecibo.		Totals of—		Total of each of these.
	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	
Crimes against persons:																	
Murder (in first degree).....	2	1	3	1	1	1	1	1	3	1			1		8	1	9
Murder (in second degree).....	3						1		1						10	2	12
Murder (in general).....	5	3	2	1	1	1	2	1	5		6				20	7	27
Manslaughter, voluntary.....	1	1	2	1	0	2	1	1	1						4	3	7
Manslaughter, involuntary.....	0	1	1	2	4	1	6	1	1	2			2		26	11	36
Mayhem.....	7	3	9	2	2	1	3	1	0				1		28	10	38
Attempt to kill.....	0	1	2	2	3	1	1	1	1		3		1		9	6	15
Assault with intent to commit homicide.	6		1	2	2	1	1	1	0		3		1		9	6	15
Assault and battery.....	109	84	19	13	48	2	33	5	36	4	9	5	2		206	88	344
Assault.....							1								1	1	2
Crimes against reputation:																	
Libel.....	1	1		4					1		1				3	5	8
Slander.....							3	3	1						3	3	6
Crimes against decency:																	
Rape.....	2	3	2		2		3	2	2	1	2	1			13	6	19
Assault with intent to commit rape.	1		1		1										3	1	4
Adultery.....	3	1	1	1	1	1	1	1	1				1		6	4	10
Bigamy.....									1						2		2
Seduction.....	3	9	1	2	2	1	2	1	1		1		1		8	14	22
Incest.....									1		1				2		2
Carnal abuse of minors.			1												1	1	2
Against nature, (sodomy, etc.).....		2									1				1	1	2
Crimes against property:																	
Arson.....																	
Burglary (first degree).....	17	9	8	3	4		10	6	4	6			9		4	9	13
Burglary (second degree).....	19	3	6	1	0	2							1		59	16	75
Grand larceny.....	16	3	11	2	7		14	1	0				0		33	9	62
Pettit larceny.....	80	10	4	1	4	2	3	2	2	2	1	1	0	4	62	10	72
Embezzlement.....	13	8	3	2	4		3	2	3	3			2		56	19	75
Obtaining money under false pretenses.	7	9							2	2	1	2	3		26	15	41
Forgery.....	5	1	1		1				2	2			2		16	11	24
Extortion.....							1								3		3
Unlawful destruction of insured property.															2		2
Malicious mischief.....															3		3
Trespass.....	1	3		2			1	1	3						6	4	10

TABLE E.—*District courts—Classified table of cases disposed of, by convictions and acquittals, during fiscal year 1912—Continued.*

Offenses.	San Juan.		Humacao.		Guayama.		Ponce.		Mayaguez.		Aguadilla.		Arecibo.		Totals of—		Total of each of these.
	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	Convictions.	Acquittals.	
<b>Crimes in prejudice of administration of public justice:</b>																	
Against public justice.....	5	4	1	2	10	2	2	1	.....	2	2	.....	.....	.....	20	11	31
Contempt of court.....	.....	.....	.....	.....	.....	.....	6	4	.....	.....	.....	.....	1	.....	7	4	11
Perjury.....	1	2	.....	2	.....	.....	.....	.....	4	3	.....	.....	.....	.....	8	4	12
Violation of law relating to registrars of property.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
<b>Crimes against good morals:</b>																	
Exposure of person, etc.....	.....	4	1	.....	.....	1	.....	.....	.....	.....	1	.....	1	.....	2	6	8
Violation of remains of dead.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Abandonment of children.....	.....	.....	.....	.....	.....	.....	1	.....	2	1	.....	.....	.....	.....	3	2	5
Gambling.....	33	16	6	1	11	1	3	.....	6	3	2	.....	.....	.....	59	21	80
Lottery.....	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	4	8
Houses of ill fame.....	2	.....	1	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	4	1	5
<b>Crimes involving the violation of laws enacted in the exercise of the police power:</b>																	
Against the police power.....	.....	3	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	5	5
Breach of peace.....	104	80	13	13	32	9	11	3	17	22	4	4	.....	.....	181	131	312
Cruelty to animals.....	3	1	2	2	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	7	4	11
Exploitation of minors.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	3
Violation of road law.....	2	2	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	2	8
Violation of municipal ordinances.....	15	32	2	3	.....	3	1	2	2	1	1	1	1	.....	21	43	64
Violation of section 553, Penal Code (Sunday law).....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	2	3
Rioting.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Concealed weapons.....	34	10	16	8	3	1	8	3	5	2	2	.....	1	.....	69	24	93
Violation of automobile regulations.....	6	1	1	1	1	3	.....	.....	.....	.....	.....	.....	.....	.....	7	5	12
Against the public health.....	17	14	2	7	4	.....	14	3	20	6	12	3	9	.....	78	33	111
Illegal practice of medicine.....	.....	2	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	4
Illegal practice of dental surgery.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	1	2
Violation of revenue law.....	6	3	7	.....	1	.....	2	2	.....	.....	.....	.....	.....	.....	15	5	20
Unclassified:																	
Against executive power.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	1	2
Conspiracy.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	3	3	6
Violation of civil-service law.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
<b>Total of convictions.....</b>	490	.....	143	.....	165	.....	144	.....	140	.....	65	.....	59	.....	1,206	.....	.....
<b>Total of acquittals.....</b>	307	.....	87	.....	.....	37	.....	56	.....	58	.....	30	.....	10	.....	595	.....
<b>Total of cases disposed of in each district court.....</b>	797	.....	230	.....	.....	202	.....	200	.....	198	.....	95	.....	69	.....	.....	1,791

TABLE F.—Civil business—district courts—fiscal year 1912.

District court of—	Pending June 30, 1911.	Presented by filing complaint and by appeal from municipal courts.	Pending June 30, 1912.	Disposed of by—			Appeals taken.
				Trial.	Dismissal or filing.	Total.	
San Juan.....	914	924	1,087	629	122	751	86
Ponce.....	291	474	335	343	87	430	17
Arecibo.....	402	470	451	393	28	421	12
Mayaguez.....	125	450	160	367	48	415	34
Humacao.....	238	497	356	364	15	379	9
Guayama.....	141	336	185	266	26	292	12
Aguadilla.....	65	215	92	173	15	188	9
Total.....	2,176	3,366	2,666	2,535	341	2,876	179

## RÉSUMÉ.

Pending June 30, 1911.....	2,176
Presented during year 1911-12 .....	3,366
	<u>5,542</u>
Disposed of during year 1911-12 .....	2,876
By trials.....	2,535
By dismissal or filing .....	341
	<u>2,876</u>
Pending June 30 1912 .....	2,666
	<u>5,542</u>

TABLE G.—Complaints and appeals handled in fiscal year 1912.

Court of—	Complaints.			Appeals from municipal and peace courts.		
	Information filed.	Dismissed.	Total.	Convictions.	Acquittals (including dismissals of complaints.)	Total.
San Juan.....	297	183	480	242	150	392
Ponce.....	178	282	460	73	68	141
Humacao.....	128	132	260	87	62	149
Mayaguez.....	104	134	238	77	41	118
Arecibo.....	89	113	202	36	26	62
Guayama.....	123	61	184	71	49	120
Aguadilla.....	81	53	134	16	16	32
Total.....	1,000	968	1,968	602	412	1,014



TABLE H.—*Criminal business—municipal courts—fiscal year 1912.*

Municipal court of—	Pending June 30, 1911.	Presented during fiscal year.	Disposed of during fiscal year.	Pending June 30, 1912.	Filed or sent to other court.	Con-victions.	Acquit-tals.	Appeals taken.
Adjuntas.....	26	466	445	19	28	347	98	1
Aguadilla.....	158	1,033	893	130	168	723	170	25
Anasco.....	31	505	456	25	55	378	78	25
Arecibo.....	18	1,502	1,473	19	28	1,229	244	19
Barros.....	35	394	327	37	65	253	74	8
Bayamon.....	75	1,842	1,791	47	79	1,309	462	161
Cabo Rojo <sup>1</sup> .....	18	657	608	14	35	532	76	20
Caguas.....	41	1,472	1,255	63	95	879	376	29
Camuy <sup>2</sup> .....	.....	164	152	11	1	123	29	1
Carolina.....	15	801	715	26	75	518	197	86
Cayey.....	25	1,212	1,120	35	82	902	218	40
Coamo.....	16	460	422	12	42	354	68	1
Fajardo.....	69	1,146	1,065	86	64	701	364	20
Guayama.....	74	820	855	39	.....	605	250	34
Humacao.....	.....	1,410	1,238	7	165	1,112	126	12
Juana Diaz.....	9	986	819	27	149	662	167	51
Lares.....	11	358	329	3	37	209	146	2
Manati.....	55	1,255	1,180	26	104	974	206	15
Mayaguez.....	16	1,321	1,109	15	213	886	243	22
Pafillas.....	22	587	542	30	37	403	139	2
Ponce.....	9	2,129	1,792	81	265	1,370	422	82
Rio Grande.....	.....	622	488	3	131	289	199	24
San German.....	15	836	733	16	102	535	198	23
San Juan.....	41	2,632	2,445	60	168	1,972	473	117
San Lorenzo.....	21	625	549	12	85	441	108	19
Salinas.....	62	948	834	80	96	684	150	19
San Sebastian.....	10	397	359	13	35	286	83	3
Utuado.....	20	1,169	1,107	35	47	880	217	16
Vega Baja.....	14	603	561	24	32	362	199	7
Vieques.....	6	424	405	10	15	368	37	11
Yabucoa.....	89	643	611	78	43	457	154	2
Yauco.....	16	975	775	.....	216	602	173	13
Total.....	1,017	30,394	27,453	1,082	2,857	21,305	6,174	842

<sup>1</sup> The data of this court is incomplete owing to the fact that the archives thereof were totally destroyed by fire Sept. 7, 1911.

<sup>2</sup> From Apr. 1, 1912, when it was inaugurated.

TABLE I.—*Civil business—municipal courts—fiscal year 1912.*

Municipal court of—	Pending June 30, 1911.	Presented during fiscal year.	Disposed of during year.	Pending June 30, 1912.	Dis-mitted or filed.	Appeals taken.
Adjuntas.....	12	10	8	5	9	.....
Aguadilla.....	157	138	62	221	12	10
Anasco.....	18	43	27	16	18	4
Arecibo.....	182	132	65	216	23	3
Barros.....	4	10	6	6	2	1
Bayamon.....	119	176	70	194	31	11
Cabo Rojo <sup>1</sup> .....	26	96	45	27	14	.....
Caguas.....	164	267	196	195	40	8
Camuy <sup>2</sup> .....	.....	25	2	14	9	.....
Carolina.....	26	65	36	40	17	3
Cayey.....	52	122	85	16	74	5
Coamo.....	89	11	6	66	28	.....
Fajardo.....	157	114	52	213	6	2
Guayama.....	91	144	104	131	.....	5
Humacao.....	151	180	76	215	10	5
Juana Diaz.....	8	68	30	22	14	2
Lares.....	23	74	47	18	32	4
Manati.....	133	95	44	156	26	3
Mayaguez.....	75	243	119	98	106	15
Pafillas.....	6	25	21	7	3	1
Ponce.....	124	258	109	201	72	15
Rio Grande.....	.....	31	19	19	16	3
San German.....	44	178	88	99	35	10
San Juan.....	274	895	612	523	33	30

<sup>1</sup> The data of this court is incomplete, owing to the fact that the archives thereof were totally destroyed by fire, Sept. 7, 1911.

<sup>2</sup> From Apr. 1, 1912, when it was inaugurated.

TABLE I.—*Civil business—municipal courts—fiscal year 1912—Continued.*

Municipal court of—	Pending June 30, 1911.	Presented during fiscal year.	Disposed of during year.	Pending June 30, 1912.	Dis- missed or filed.	Appeals taken.
San Lorenzo.....	186	131	93	153	71	1
Salinas.....	26	73	53	21	25	1
San Sebastian.....	5	73	54	14	10	5
Utuado.....	80	90	29	120	21	1
Vega Baja.....	22	26	11	24	13	3
Vieques.....	1	31	18	3	11	1
Yabucoa.....	49	92	56	59	26	2
Yauco.....	37	97	68	28	48	20
Total.....	2,343	4,004	2,314	3,140	867	174

TABLE J.—*Appeals from municipal and peace courts decided in district courts during fiscal year 1912.*

District of—	Convic- tions.	Acquit- tals.	Total.
San Juan.....	242	150	392
Humacao.....	87	62	149
Guayama.....	71	49	120
Mayaguez.....	77	41	118
Ponce.....	73	68	141
Arecibo.....	36	26	62
Aguadilla.....	16	16	32
Total.....	602	412	1,014

TABLE K.—*Applications for pardon disposed of during the fiscal year 1912 and those pending June 30, 1911, and June 30, 1912.*

Pending June 30, 1911.....	9
Presented during fiscal year 1912.....	114
Total.....	123
Disposed of during fiscal year 1912:	
Pardon cases—	
Granted.....	11
Denied.....	36
No action—	
For having served term.....	4
For having returned case to the Palace.....	2
	53
Parole—	
Denied.....	37
Remittance of fine—	
Part remittance.....	1
Total remittance.....	3
	4
Pending June 30, 1912.....	94
	29
	123

TABLE L.—*Pardons granted during fiscal year 1912.*

## IN CASES OF CRIMES AGAINST PERSONS.

Name of applicant.	Offenses.	Term of sentence.	Actual term served.
Lope González Padilla.....	Manslaughter, involuntary.	5 years in the penitentiary.	1 year and 10 months.
Justo Rosa.....	Assault and battery...	1 year in jail.....	1 month and 8 days.

## IN CASES OF CRIMES AGAINST PROPERTY.

Santiago Simonet.....	Embezzlement.....	2 years in the penitentiary.	7 months and 11 days.
Armando M. Gautir.....	do.....	do.....	1 year.
Juan Estremera.....	Petit larceny.....	Reform school.....	1 year and 6 months.
Hermenegildo López.....	do.....	do.....	2 years 1 month and 3 days.
Pedro Miranda.....	do.....	do.....	3 years and 4 months.
Tiburcio Paduani.....	do.....	do.....	2 years 2 months and 21 days.
Pedro Rodríguez Torres.....	do.....	do.....	2 years 2 months and 13 days.
Cristino Saavedra.....	do.....	do.....	2 years and 5 days.
Marcelino Vélez.....	do.....	do.....	2 years 8 months and 26 days.

## IN CASES OF CRIMES INVOLVING THE VIOLATION OF LAWS ENACTED IN THE EXERCISE OF THE POLICE POWERS.

Felipe Avilés.....	Concealed weapons....	\$60 fine.....	Reduced to \$50.
José E. Rivera (police).....	Contempt of court.....	\$6 fine.....	Remitted.
Jerry Dubois.....	Breach of the peace....	\$10 fine.....	Do.
Harry Baxter.....	do.....	\$10 fine.....	Do.

## APPENDIX VII.

### REPORT OF THE DIRECTOR OF LABOR, CHARITIES, AND CORRECTION.

OFFICE OF THE DIRECTOR,  
*San Juan, June 30, 1912.*

SIR: I have the honor to submit the report of this department for the fiscal year ending June 30, 1912.

By an act of the insular legislature, approved March 9, 1911, and effective July 1 of the same year, there was created a service of sanitation, giving the head of this department the power to appoint, with the approval of the governor, the director thereof and the chairman and members of the insular board of health. Since the latter date the service has been practically disconnected from this department, and by a further act of the legislature passed March 14, 1912, made independent.

On the same day, March 14, 1912, an act was approved to establish a bureau of labor and for other purposes. It was placed under this department and will commence to operate promptly at the beginning of the next fiscal year.

In consequence of this legislation the title of this department was changed from "department of health, charities, and correction" to "department of labor, charities, and correction."

#### CHARITABLE INSTITUTIONS.

##### INSANE ASYLUM.

There were in the asylum on June 30, 1911, 334 patients, 139 male and 195 female. There were admitted during the year 113, of whom 43 were suffering from uncinariasis and 64 were discharged, 35 cured, and 39 not completely cured. Most of the latter were discharged at the request of their relatives, on the condition that they be securely and properly cared for. At the close of the year there were in the institution 341 patients, 143 male and 198 female.

The health of the inmates in general has been good, although the death rate per hundred has increased to 9, or 1 per cent higher than that of the previous year, owing to the distressful condition of health of the patients admitted from the jails. There have been no violent deaths, suicides, etc., during the year.

The most prevalent mental diseases among the males are dementia precox, 29; paranoia, 24; alcoholic insanity, 21; mania, 19; and periodical insanity, 13; and among the females, mania, 41; involution insanity, 28; paranoia, 21; periodical insanity, 20; puerperal insanity, 11; dementia precox, 11; and epileptic insanity, 10.

The greater number of male inmates are laborers, followed in order by business men, clerks, and farmers.

The applications received for admission into the asylum of the insane scattered throughout the island, and who do not receive the proper care, numbered over 200, of whom some are sheltered in special hospitals, while the rest are either in the jails or at large in the different towns.

For some years past there has been urgent need of a modern insular insane asylum, planned according to the necessities and the latest progress in the treatment of mental diseases. The inconvenience to which many families are put, the nuisance which the alcaldes suffer, and the complaints daily made to this office of the many insane at large or improperly cared for in the different municipalities, are more than sufficient reasons to justify prompt action by the legislature.

The number of pay patients admitted this year shows an increase. The receipts from this source were \$8,544, from which should be deducted the amounts repaid to pay patients who have been discharged and whose monthly payments were made in advance.

I beg to renew the recommendation made in the report of 1910 relative to increasing from \$15, now paid, to \$20, the monthly charge for each pay patient. The increase in the prices of articles of subsistence and the personal expense incurred in the special treatment of these patients justify this action.

*Occupation, age, color, and marital condition of inmates of the asylum, June 30, 1912.*

Occupation.	Men.	Women.	Total.
Bakers.....	4	.....	4
Barbers.....	3	.....	3
Blacksmiths.....	1	.....	1
Carpenters.....	1	.....	1
Cigarmakers.....	9	.....	9
Domestics.....	.....	198	198
Employees.....	12	.....	12
Farmers.....	6	.....	6
Laborers.....	82	.....	82
Lawyers.....	1	.....	1
Masons.....	1	.....	1
Merchants.....	8	.....	8
Painters.....	1	.....	1
Plumbers.....	1	.....	1
Shirt makers.....	1	.....	1
Soldiers.....	1	.....	1
Students.....	3	.....	3
Teachers.....	1	.....	1
Tradesmen.....	7	.....	7
Total.....	143	198	341
<b>AGE.</b>			
From 10 to 20 years.....	3	3	6
From 20 to 30 years.....	46	52	98
From 30 to 40 years.....	46	66	112
From 40 to 50 years.....	32	50	82
From 50 to 60 years.....	11	18	29
From 60 to 70 years.....	5	9	14
Total.....	143	198	341
<b>COLOR.</b>			
White.....	104	120	224
Colored.....	39	78	117
Total.....	143	198	341
<b>MARITAL CONDITION.</b>			
Single.....	90	123	213
Married.....	33	38	71
Widowed.....	3	22	25
Marital condition unknown.....	17	15	32
Total.....	143	198	341

*Mental diseases from which the insane of both sexes in the asylum June 30, 1912, are suffering.*

Mental diseases.	Men.	Women.	Total.
Alcoholic insanity.....	21	6	27
Cerebral syphilis.....	1	.....	1
Circular insanity.....	.....	3	3
Dementia.....	4	9	13
Dementia precox.....	29	11	40
Epileptic insanity.....	7	10	17
Hysterical insanity.....	.....	3	3
Imbecility.....	7	5	12
Idiots.....	.....	3	3
Insanity after fever.....	.....	3	3
Insanity after gravid.....	.....	1	1
Involution insanity.....	.....	28	28
Mania.....	19	41	60
M. D. I. mania.....	1	4	5
Melancholy.....	8	12	20
Paranoia.....	24	21	45
Paralytic dementia.....	3	.....	3
Periodical insanity.....	13	20	33
Puerperal insanity.....	.....	11	11
Secondary dementia.....	1	.....	1
Senile insanity.....	.....	4	4
Undiagnosed.....	5	3	8
Total.....	143	198	341

*Deaths during the period 1905-1912.*

Years.	Number.	Percent- age.
1905-6.....	402	19
1906-7.....	398	13
1907-8.....	561	12
1908-9.....	530	17
1909-10.....	460	6
1910-11.....	467	8
1911-12.....	447	9

## BLIND ASYLUM OF PONCE.

This institution has continued a useful work with marked success for the poor classes of the entire island suffering from the impairment of sight. In both its administrative and technical features it has been well conducted, the utmost cleanliness and hygiene prevailing in all its departments.

One hundred and sixty-nine patients were admitted, 43 afflicted with incurable cases and 126 diagnosed as curable. Of these, 80 left the institution completely cured.

One hundred operations of different classes, of which 53 were for cataract and 15 for pterygion, were performed. There were 531 cases of intercurrent maladies and 196 were diagnosed; 122 patients were placed under proper treatment, and 5 deaths occurred from arteriosclerosis and pneumonia.

As stated in previous years, the lack of a proper place for an infirmary has been very noticeable, and for this reason many patients left the institution without being operated upon, while others went away before they were completely cured, making it impossible to arrive at an accurate percentage of the curable cases.

I again must call attention to the difficulties encountered in the transportation to the asylum of patients from the various towns. Forty admission orders are on file in the office of the asylum pending the arrival of the respective patients. This is due to the fact that the municipalities do not care to advance the necessary funds to cover the transportation expenses of these patients, which, of course, are repaid by the department to the municipalities upon presentation of the proper vouchers therefor.

The insular government pays only the expenses of transportation to the asylum, and several municipalities, because of lack of necessary appropriation in their budgets, do not remove their patients back to their homes when discharged, thereby causing this department considerable annoyance.

New sanitary apparatus have been installed resulting in the betterment of the service, and I desire to recommend as necessary improvements: The construction of two modern infirmaries to be devoted to ophthalmic works; private apartments for the director in the upper story of the building; an amusement courtyard for the blind and a special department for contagious diseases; also the installation of a manual school for the blind and the painting of the exterior of the building.

## BOYS' CHARITY SCHOOL.

On June 30, 1912, there were 264 boys in this school.

Sixty-two boys left the asylum, and of these 4 were somewhat familiar with the trade of carpentry and 1 with tailoring, 9 had some knowledge of plumbing, 16 were ready to enter the shoemaker's shop, and 14 belonged to the band. Three were in the sixth grade, 6 in the fifth, 19 in the fourth, 15 in the third, 17 in the second, and 2 in the first.

During the period covered by this report 81 boys were admitted. The work performed by them in the school and the instruction received in the different shops were the same as in the previous year. An exhibition of their work and of the articles manufactured by them was made at the Insular Fair held in December, 1911, and a large number of prizes were there awarded them. The work of the carpenter shop was very notable on account of the variety and quality of the articles exhibited, that of the shoemaker's following with samples of shoes of as good quality and workmanship as those made abroad. The exhibits of the tailoring and plumbing shops were equally praiseworthy, that of the school being remarkably good.

The band, under the leadership of Prof. Vifolo, and in which many boys complete their musical education, has rendered very good service. Practice during both instruction and concerts given in public has brought good results. There have been deposited \$1,685 to the credit of the special fund created by the proceeds of the con-

certs rendered, and in February last a complete set of new instruments, triple plated, was secured in the United States. The articles made by the boys in the carpenter shop brought \$113.95.

The health of the inmates has been generally satisfactory, there having been no deaths during the year. One case only of typhoid fever occurred, and this was immediately and properly isolated until a complete cure resulted.

In 1910 the school was repaired under the direction of the department of the interior, with a special appropriation set apart by the legislature for this purpose, but in spite of this it is in need of repairs to floors, galleries, rear façade, doors and windows. The legislature at its last session made an appropriation for certain improvements, some of which, repairs to water-closets, have already been completed, and plans have been drawn for those to baths and lavatories.

The institution has purchased from a well-known concern in the United States three laundry machines which are operated by an electric motor, and new furniture has been obtained for the infirmary.

#### GIRLS' CHARITY SCHOOL.

The number of inmates in the asylum on June 30, 1911, was 150. There were admitted 47 and 32 were discharged, there remaining June 30, 165.

The work accomplished by the teachers has been entirely satisfactory. Five grades in English are taught, with the following daily attendance: Fifty-four in the first grade, 34 in the second, 34 in the third, and 43 in the fourth and fifth, corresponding classes being taught in Spanish. The commissioner of education has kindly loaned us all the books and necessary material for the teaching of the courses of the public schools.

Forty-five attended the drawn-work and embroidery shop; 25 the straw-weaving, 25 the millinery, 30 the crochet and marking, and 40 the needle-work shop. The success of the work performed has been very notable, and at the insular fair held in December last, in which over 150 different articles made by the inmates were exhibited, 15 prizes were obtained and the most ardent praises of the committee on awards and visitors given.

A cooking and confectionery school, equipped with all necessary utensils, and in which 35 girls are being trained, was established during the year.

On Saturdays 50 girls, and on the other days a few, attend the laundry and ironing shop, in which laundry and ironing machines will soon be installed.

Health conditions in general have been excellent, only 35 girls, suffering from illness of minor importance, such as dermatitis, etc., having gone to the infirmary. There was a very mild case of typhoid fever, which, after having been isolated and properly treated, was completely cured. No deaths occurred during the year.

Thus far we have been unable to obtain patients from all parts of the island, the principal difficulty being the inability of poor families residing away from San Juan to pay for the transportation of their children to the asylum. As the municipalities do not assist in overcoming this difficulty, it would be wise to include in our budget an appropriation of \$400 to pay for the transportation of these children. San Juan has the largest number of inmates, and 20 towns have none at all.

There were deposited \$185.60 to the credit of the special trust fund known as "Sale of articles, Girls' Charity School trust fund," during the year. As there is over \$1,200 available therefrom it is my intention, following the recommendation of the superintendent of the school, to establish a millinery shop to train girls in the making and trimming of ladies' hats.

It is my intention also to instruct the bandmaster of the Boys' Charity School to give the inmates of the Girls' Charity School lessons in music every other day, the purpose being to create later on a band with proper instruments for girls.

Except the building of a new kitchen, the department of the interior has not done any new construction or repair work. Repairs to the floors and kitchen and a general painting of the building, both outside and inside, are urgently needed.

The institution has continued its work along its regular and efficient line, diffusing a great deal of benefit to the poorest classes of the island, notwithstanding the fact that much is yet to be done in both its technical and administrative management.

#### BUREAU OF PRISONS.

There are attached hereto 15 tables containing the most essential data relative to the administration and general conditions of prisoners in the insular penal institutions, which will facilitate the study of the subjects connected with the prison service in its different aspects.

## PRISONERS.

On June 30, 1911, there were confined in the insular penal institutions 1,771 prisoners. During the year 6,341 were committed and 6,527 released, there being on June 30, 1912, 1,585, and the daily average 1,681, a slight increase over that of the previous year of 1,641.

The offenses principally responsible for the largest number of prisoners were larceny, burglary, assault and battery, and homicide.

A classification of prisoners by age shows that most of the offenses have been committed by persons of from 21 to 25 years of age in the first instance, of from 26 to 30 in the second, and of from 16 to 20 in the third. From 40 years up criminality among individuals begins to decrease notably.

Of the 1,585 confined on June 30, 501 had been committed more than twice and 270 twice; 1,123 could neither read nor write and were absolutely uneducated.

The district of Humacao appears to have furnished the highest percentage of prisoners in proportion to its population; San Juan, Guayama, Mayaguez, Ponce, Arecibo, and Aguadilla following in successive order.

The number of female prisoners June 30 was 73, the offense in most instances being breach of the peace. Only 10 had been committed for crimes against persons.

The minors June 30 numbered 426, of whom 263 are serving sentences for offenses against property, 66 for those against persons, and 7 for those against morals.

The total number of sick was 1,425, of whom 1,242 were cured and 60 died, mostly from tuberculosis and diseases of the digestive apparatus, leaving 123 on June 30.

The amount expended for the maintenance of the insular penal institutions was \$184,998.73, the average cost of keeping each prisoner being \$110.05, and of feeding, \$44.72.

The insular prisons have contributed to the construction, maintenance, and repair of public roads 172,951 convict days' work, which represents a saving to The People of Porto Rico of \$86,475.50, figuring a convict day at the low rate of 50 cents.

## PENITENTIARY.

The number of prisoners in this institution on June 30 was 532. Most of them are engaged in work on the insular roads and in different services within the penitentiary. During the present epidemic of bubonic plague 111 convicts volunteered to help in the sanitation work carried on in the municipality of San Juan.

They also work daily in the different shops, the average daily attendance in the carpenter shop being 19, and the result manufactured articles to the value of \$1,208.90. The average daily attendance in the tailor shop was 16, with an output to their credit of 4,886 convict suits, of which 2,912 were distributed among prisoners serving sentences in the district jails and the remainder worn by convicts in the penitentiary. The tailor shop is also credited with the making up of every piece of cloth used in the infirmary. Thirty-five prisoners daily worked in the shoemaker shop and made 1,718 pairs of shoes.

The school records show that an average of 38 prisoners were present in the classroom daily and that the majority of them learned to read and write.

Some convicts engaged in basket-weaving work, the baskets and other articles made selling for \$135.97.

The female prisoners are engaged in washing, ironing, and mending the convicts' clothes, being thus kept from being idle, with some benefit to the insular funds. Female prisoners in the penitentiary number 9 and are serving sentences for felony.

The number of prisoners in the several insular jails on June 30 was:

San Juan.....	242
Arecibo.....	93
Aguadilla.....	58
Mayaguez.....	66
Ponce.....	240
Guayama.....	124
Humacao.....	92
Vieques.....	41
<b>Total.....</b>	<b>956</b>



## BUILDINGS.

The buildings of the Arecibo Jail and the Reform School may be said to be the only ones of modern construction, and although some defects are to be noted they meet the requirements of the service to which they are devoted.

The Ponce, Mayaguez, and Vieques jail buildings were in the time of the old régime used as barracks, but have been changed and repaired for their present use and show some improvement. The Aguadilla and Humacao jail buildings are leased and absolutely lack the improvements necessary for the proper confinement of prisoners. The Guayama jail building is owned by The People of Porto Rico, but does not contain the necessary improvements.

The San Juan district is in need of a jail building, the prisoners for this reason being confined in two separate wards, one in the Arecibo jail at Arecibo and the other annexed to the penitentiary in San Juan. Such arrangement greatly inconveniences and handicaps the proper use of the Arecibo jail, and in addition the prisoners in the San Juan ward are very uncomfortable and without the necessary space, this being especially so in the ward occupied by the females, which lacks the necessary ventilation and hygiene.

The necessity of the erection of suitable buildings for the penitentiary, as well as for the San Juan, Aguadilla, Humacao, and Guayama jails, is of a most pressing character. Laws have been enacted by the legislature for the erection of some, and their early construction in accordance with modern penal methods is recommended. The American Auburn system of prisons—a mixed system of solitary cells for the confinement of inmates during the night, where they may devote themselves to study and meditation, while during the day they may be employed in the different occupations and school—seems to be the best adapted to this island.

Minors in the Ponce, Mayaguez, and Arecibo Jails are provided with suitable and separate wards where they are taught reading, writing, and arithmetic. Escape of prisoners from the penitentiary and jails is of rare occurrence, strict care and vigilance being constantly kept over them.

## REFORM SCHOOL.

The average daily number of inmates was 98, while 12 were pardoned, 2 set at liberty under parole, in accordance with the provisions of the school regulations, and 3 definitely released. There occurred 6 deaths, and 3 boys deserted but were captured.

The school, like the penitentiary, is equipped with carpenter, tailor, and shoemaker shops, the average daily attendance being 86 in the school and 24, 15, and 11 in the respective shops.

In the tailor shop all the garments for the inmates as well as all the clothing for the infirmary and dormitory were made, and in the shoemaker shop all the shoes for the inmates. The boys engaged in the latter trade have shown marked progress.

There were 51 inmates at the beginning of the fiscal year without education, and of these 31 learned to read and write.

By an act of the legislature the school was provided with a gasoline launch for the transportation of the employees and for the performance of other necessary services to and from the school, which is located in an isolated place and was without means of communication.

One of the improvements made was the erection of a new wing to the school building, which is used as an infirmary and has an operating room. It is divided into two sections or wards, one for common diseases and the other for contagious.

Another was the construction by 10 prisoners from the Mayaguez Jail, working under the direction of the superintendent of the school, of 520 meters of macadamized road from the building to the "Estero" River.

A tract of 1 acre on the east side of the school is being cultivated. The lighting is with kerosene, which is unsuitable, electricity or gasoline being preferable. A cistern was built but is too small, and another of larger capacity is required to collect the rain water for consumption by the institution.

## REMARKS.

Owing to the lack of appropriate buildings it is difficult to apply a scientific penal system in Porto Rico, as especially erected structures are required for such a system. The installation of a moving-picture machine with films of a moral and instructive character, as well as of scenery and views of places of interest, would assist in the ethical education of the prisoners.

Attention is invited to the frequent and numerous escapes of prisoners from the work on public roads, as well as to the large number returned sick to the jails there-

from. The desertions numbered 63, and of these 49 escaped from the road convict camps, 7 from work on the streets, and 6 from other places, including penal institutions. Notwithstanding the fact that escaped prisoners are in most cases captured, it seems that such desertions could be greatly reduced by placing under the control of the bureau of prisons the surveillance and custody of all sent out to work on the public roads.

The seclusion of insane in the jails, pending their transfer to the insane asylum, is creating difficulties which more than once have placed this office in an embarrassing position, owing to the lack of accommodations in the insane asylum. The jails are absolutely without the necessary means for the proper housing, care, and treatment of these patients, which as a result injuriously affect the good order and discipline of the prisons.

The reform school is in urgent need of a road leading to the city of Mayaguez and of sufficient potable water. Its isolated location without a road gives rise to much inconvenience.

Very respectfully,

M. CAMUÑAS,

*Director of Labor, Charities, and Correction.*

The GOVERNOR OF PORTO RICO,  
San Juan, P. R.

### EXHIBITS.

*Statement of expenditures by the charitable institutions during the fiscal year 1911-12.*

	Blind asylum.	Insane asylum.	Girls' Charity School.	Boys' Charity School.	Total
Salaries.....	\$7,446.75	\$17,660.76	\$0,536.01	\$15,678.00	\$30,320.52
Subsistence.....	6,253.18	28,388.27	10,338.44	14,687.66	59,667.55
Clothing, bedding, etc.....	2,496.04	8,902.19	5,667.16	12,567.76	29,663.15
Water.....	437.20	1,871.16	664.16	1,147.16	4,119.68
Lighting.....		862.89	537.86	835.43	2,235.68
Transportation of patients.....		337.99			337.99
Equipment and supplies for industrial teaching.....				541.63	541.63
Improvements (special appropriation).....				448.80	448.80
Sale of articles and work done—trust fund.....				2,188.23	2,188.23
<b>Total.....</b>	<b>16,633.17</b>	<b>58,022.76</b>	<b>26,742.63</b>	<b>48,124.46</b>	<b>149,523.02</b>

## Statement of the management of the penal institutions, fiscal year 1912.

Expenditures.	San Juan Jail.	Arecibo Jail.	Aguadilla Jail.	Mayaguez Jail.	Ponce Jail.	Guayama Jail.	Humacao Jail.	Vieques Jail.	Reform School.	Total.
Food.....	\$22,713.73	\$4,458.99	\$1,884.40	\$5,004.81	\$13,671.20	\$5,795.53	\$4,012.32	\$1,550.85	\$5,410.12	\$75,175.34
Medicines and surgical supplies.....	779.01	539.17	154.53	121.05	191.48	199.60	145.40	62.20	307.35	2,734.86
Lighting.....	1,817.18	186.55	46.10	350.86	434.39	129.16	229.06	190.24	167.53	3,947.75
Water.....	1,894.75	159.16	.....	160.00	240.00	.....	.....	.....	.....	2,443.91
Rent of buildings.....	5,849.02	529.03	730.00	.....	355.53	274.51	720.00	377.36	1,903.52	11,895.58
Incidental expenses.....	17,979.99	5,293.00	3,293.33	6,261.33	6,510.33	4,526.00	5,273.00	3,868.00	10,155.40	71,869.60
Salaries.....	8,106.22	.....	418.79	676.17	.....	.....	551.17	.....	1,005.25	10,652.36
Costs for the penitentiary and all dis- trict jails.....	7,587.61	.....	.....	.....	.....	.....	.....	.....	.....	7,587.61
Savings fund for prisoners discharged from the penitentiary.....	1,921.57	.....	.....	.....	.....	.....	.....	.....	.....	1,921.57
Material for manufacturing articles for sale.	1,880.32	.....	.....	.....	.....	.....	.....	.....	.....	1,880.32
Transportation.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,676.93
Equipment.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1,840.01
Total.....	62,423.18	10,781.26	6,585.69	12,656.25	21,402.93	10,925.50	10,950.97	6,138.65	22,466.11	184,998.73
Daily per capita:	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents	Cents.
Regular ration.....	11.55	12.00	11.00	11.96	12.00	12.00	11.50	11.20	12.00	.....
Stuck ration.....	15.93	16.00	15.00	15.39	16.00	15.00	14.50	14.00	14.81	.....

## Average cost per annum fiscal year 1912.

Item.	San Juan Jail.	Arecibo Jail.	Aguadilla Jail.	Mayaguez Jail.	Ponce Jail.	Guayama Jail.	Humacao Jail.	Vieques Jail.	Reform School.	Total.
Food for each prisoner.....	\$41.98	\$43.72	\$43.82	\$46.33	\$44.24	\$45.29	\$40.12	\$40.81	\$35.20	\$44.72
Average annual cost of every prisoner in relation to the total amount expended for the maintenance of each penal insti- tution.....	82.06	106.69	153.16	145.05	60.27	60.35	109.51	161.54	229.14	110.05

*Average number of prisoners.*

Item.	Penitentiary.	San Juan Jail.	Arecibo Jail.	Aguadilla Jail.	Mayaguez Jail.	Ponce Jail.	Guayama Jail.	Humacao Jail.	Vieques Jail.	Reform School.	Total
<b>Daily average number of prisoners, fiscal year:</b>											
1906	591	455	82	77	105	299	118	158			1,846
1907	668	271	97	61	105	215	130	146			1,693
1908	646	237	118	50	137	181	105	127	65	26	1,692
1909	559	253	107	67	117	199	104	120	84	44	1,654
1910	530	192	117	73	122	175	99	109	104	71	1,592
1911	546	236	100	49	96	270	112	85	58	89	1,641
1912	501	252	102	43	110	309	128	100	38	98	1,681
<b>Daily average number of sick prisoners, fiscal year:</b>											
1906	76	24	3	3	11	18	3	20			158
1907	73	8	3	1	2	14	4	17			121
1908	70	8	5	1	10	17	3	15	2	2	138
1909	58	8	3	1	13	16	3	7	3	1	118
1910	54	6	3	1	4	15	4	5	4	3	100
1911	50	11	3	2	4	13	4	3	2	5	94
1912	70	18	3	2	6	10	5	3	2	5	124

*Statement showing terms of sentence of prisoners confined in the penal institutions June 30, 1912.*

Classification.	Penitentiary.	San Juan Jail.	Ward of the San Juan Jail located in the penitentiary.	Arecibo Jail.	Aguadilla Jail.	Mayaguez Jail.	Ponce Jail.	Guayama Jail.	Humacao Jail.	Vieques Jail.	Reform School.	Total.
Awaiting trial			31	15	6	3	27	20	16	2		120
Sentenced	532	28	183	78	52	63	213	104	76	39	97	1,466
<b>Total</b>	<b>532</b>	<b>28</b>	<b>214</b>	<b>93</b>	<b>58</b>	<b>66</b>	<b>240</b>	<b>124</b>	<b>92</b>	<b>41</b>	<b>97</b>	<b>1,585</b>
Sentenced to serve until 21 years of age											97	97
Up to 6 months	5	8	128	39	25	38	61	61	62	22		449
Over 6 months and less than 1 year	9	3	16	13	1	1	16	6	5	1		71
1 year and less than 2	88	11	32	17	10	12	53	21	7	2		253
2 years and less than 3	59	5	7	1	9	2	18	13	1	1		116
3 years and less than 4	44				1	4	15			1		65
4 years and less than 5	13						8					21
5 years and less than 6	69				1		13					83
6 years and less than 8	47				1	1	9	2		2		62
8 years and less than 10	26			3	1	1	1			1		33
10 years and less than 15	64	1		3	3	3	10		1	5		90
15 years and less than 20	26			1			4	1		3		35
20 years and less than 30	25			1		1	5			1		33
30 years and over	10											10
Life time	45											45
Condemned to death	2											2
<b>Total</b>	<b>532</b>	<b>28</b>	<b>183</b>	<b>78</b>	<b>52</b>	<b>63</b>	<b>213</b>	<b>104</b>	<b>76</b>	<b>39</b>	<b>97</b>	<b>1,466</b>

*Number of commitments of prisoners, June 30, 1912.*

Item.	Penitentiary.	San Juan jail.	Arecibo jail.	Aguadilla jail.	Mayaguez jail.	Ponce jail.	Guayama jail.	Humacao jail.	Vieques jail.	Reform school.	Total.
Confined for the—											
First time.....	450	127	56	46	37	171	99	49	24	55	1,084
Second time.....	55	51	16	7	14	35	39	20	6	34	270
Third time.....	19	17	6	3	7	17	12	5	5	6	97
Fourth time.....	7	23	5	1	3	12	5	2	1	1	61
Fifth time.....	1	9	4	1	3	3	2	2	1	1	28
Sixth time.....		5	3			1	3	3			15
Seventh time.....		4	2				1	2	1		10
Eighth time.....		2			1		1			1	6
Ninth time.....		2				1		1			5
Tenth time.....		1					2	1			4
Eleventh time.....					1						1
Twelfth time.....					1						1
Thirteenth time.....					1						1
Fourteenth time.....								1		1	2
Total.....	532	242	93	58	66	240	124	92	41	97	1,585

*Number of prisoners, June 30, 1912—Age when convicted.*

Item.	Penitentiary.	San Juan jail.	Arecibo jail.	Aguadilla jail.	Mayaguez jail.	Ponce jail.	Guayama jail.	Humacao jail.	Vieques jail.	Reform school.	Total.
Up to 10 years.....						1				14	15
11 years and under 16 years.....	10	12	7	2	5	3	5	3		83	130
16 years and under 21 years.....	113	78	15	4	13	56	27	24	6		318
21 years and under 25 years.....	145	70	25	22	14	68	27	25	14		410
25 years and under 30 years.....	126	34	21	13	13	46	48	18	13		331
30 years and under 35 years.....	48	16	11	7	8	25	14	10	5		146
35 years and under 40 years.....	36	14	2	6	2	17	6	6	3		91
40 years and under 45 years.....	22	8	4	2	4	14	10	2			76
45 years and under 50 years.....	9	3	3	1	1	3		3			26
50 years and under 55 years.....	2	2	1	1	4	3	4		2		20
55 years and under 60 years.....	10	1	3	1	1	1	1				17
60 years and under 65 years.....	1		1								2
65 years and under 70 years.....								1			1
70 years and under 75 years.....					1						1
75 years and under 80 years.....											
80 years and upward.....						2					2
Total.....	532	242	93	58	66	240	124	92	41	97	1,585

*Nationality of prisoners confined in the penal institutions on June 30, 1912.*

Country.	Penitentiary.	San Juan jail.	Arecibo jail.	Aguadilla jail.	Mayaguez jail.	Ponce jail.	Guayama jail.	Humacao jail.	Vieques jail.	Reform school.	Total.
United States of America.....	2							1			3
Porto Rico.....	526	235	93	57	65	240	124	91	41	97	1,568
Spain.....	3			1							7
France.....	2				1						3
Italy.....		2									2
Venezuela.....		1									1
Santo Domingo.....		1									1
Total.....	532	242	93	58	66	240	124	92	41	97	1,585

*Summary of offenses, June 30, 1912.*

Offense.	Number.	Rate per thousand of island's population.	Percentage of total number of offenses.
Larceny (grand, 117; petit, 280).....	397	0.3548	22.41
Assault and battery.....	280	.2502	15.80
Burglary.....	186	.1662	10.50
Homicide.....	109	.0874	6.15
Murder.....	105	.0838	5.93
Breach of public peace.....	94	.0840	5.51
Rape.....	43	.0384	2.43
Embezzlement.....	37	.0331	2.09
Attempt to kill.....	34	.0304	1.93
Mayhem.....	33	.0295	1.86
Against nature.....	27	.0241	1.53
Lunatics.....	27	.0241	1.53
False impersonation and imposture.....	19	.0170	1.07
Gambling.....	17	.0152	.96
Concealed weapons.....	17	.0152	.96
Attempt to commit rape.....	15	.0134	.86
Arson.....	13	.0116	.73
Attempt to commit homicide.....	12	.0107	.66
Robbery.....	11	.0098	.63
Forgery.....	11	.0098	.63
Seduction.....	6	.0053	.33
Against public justice.....	6	.0053	.33
Adultery.....	5	.0044	.28
Bigamy.....	4	.0035	.23
Against public morals.....	4	.0035	.23
Malicious injury.....	4	.0035	.23
Dishonest exhibitions.....	4	.0035	.23
Violation of municipal ordinances.....	4	.0035	.23
Perjury.....	4	.0035	.23
Attempt to commit murder.....	4	.0035	.23
Against the executive power.....	3	.0026	.16
Contempt of court.....	3	.0026	.16
Extortion.....	3	.0026	.16
False pretense.....	3	.0026	.16
Violation of United States Federal acts.....	3	.0026	.16
Keeping disorderly house.....	3	.0026	.16
Violation of postal laws.....	2	.0017	.11
Incest.....	2	.0017	.11
Abandonment and desertion of minors.....	2	.0017	.11
Others.....	29	.0259	1.64

*Grand total of prisoners, June 30, 1912.*

Item.	Penitentiary.	San Juan Jail.	Arecibo Jail.	Aguadilla Jail.	Mayaguez Jail.	Ponce Jail.	Guayama Jail.	Humacao Jail.	Vaquez Jail.	Reform School.	Total.
Confined in the penal institutions.	532	243	93	58	66	240	124	92	41	97	1,556
Outside penal institutions:											
Paroled.....	37										37
Fugitives.....	10	9	7			25	10	2	5	1	69
Total.....	579	251	100	58	66	265	134	94	46	98	1,661

*Sentences, by calendar year, of principal crimes from and after 1887.*

Years.	Against persons.				Against property.				Against morals.		
	Murder.	Homicide.	Attempt to kill.	Total.	Arson.	Robbery.	Burglary.	Total.	Rape.	Seduction.	Total.
1887.....	1	21	5	27	8	68	.....	71	8	.....	8
1888.....	.....	19	9	28	.....	18	.....	18	.....	.....	.....
1889.....	.....	20	12	32	.....	3	.....	3	.....	.....	.....
1890.....	1	31	3	35	.....	28	.....	28	1	.....	1
1891.....	2	40	5	47	4	122	.....	126	6	.....	6
1892.....	.....	36	.....	36	9	61	.....	70	4	.....	4
1893.....	.....	32	2	34	1	56	.....	57	5	.....	5
1894.....	.....	33	4	37	.....	109	.....	109	4	.....	4
1895.....	.....	16	4	20	2	113	.....	115	4	.....	4
1896.....	2	22	4	28	.....	88	.....	88	.....	.....	.....
1897.....	3	34	6	43	2	48	.....	50	.....	.....	.....
1898.....	2	22	1	25	.....	8	.....	8	.....	.....	.....
1899.....	5	21	6	32	8	74	.....	82	1	.....	1
1900.....	8	28	17	53	3	117	.....	120	3	.....	3
1901.....	3	25	13	41	3	79	.....	82	5	.....	5
1902.....	5	21	7	33	2	50	5	57	7	5	12
1903.....	9	30	7	46	3	14	32	49	7	3	10
1904.....	9	25	3	37	1	8	20	29	9	7	16
1905.....	25	15	14	54	.....	2	58	60	20	17	37
1906.....	16	21	15	52	.....	1	82	83	16	13	29
1907.....	9	19	19	47	.....	3	90	93	18	9	27
1908.....	9	20	6	35	1	4	96	101	11	9	20
1909.....	5	17	15	37	4	4	129	137	6	12	18
1910.....	12	48	6	66	2	2	141	145	10	3	13
1911.....	17	22	12	51	2	.....	32	34	6	2	8
From Jan. 1 to June 30, 1912.....	6	16	2	24	.....	.....	29	29	6	2	8

*Number of days' work performed by prisoners employed on the insular highways during the fiscal year 1912.*

Months.	Penitentiary.	San Juan Jail.	Arecibo Jail.	Agua-dilla Jail.	Mayaguez Jail.	Ponce Jail.	Guayama Jail.	Humacao Jail.	Vieques Jail.	Total.
<b>1911</b>										
July.....	3,975	2,135	1,598	100	420	7,574	682	644	226	17,354
August.....	4,274	1,880	1,598	6	520	7,222	958	760	281	17,500
September.....	3,774	2,421	1,127	.....	500	6,545	991	860	322	16,540
October.....	3,836	2,362	1,397	.....	520	6,411	1,004	885	366	16,781
November.....	3,893	1,729	1,341	30	500	5,684	568	699	266	14,730
December.....	4,316	1,682	1,077	178	460	5,016	185	700	227	13,841
<b>1912</b>										
January.....	3,499	1,406	1,399	153	640	4,842	1,272	814	225	14,239
February.....	3,685	1,131	1,480	163	690	4,292	1,056	784	347	13,638
March.....	3,737	1,219	1,380	159	820	4,259	1,264	847	402	14,067
April.....	2,955	1,269	1,125	100	720	3,849	669	764	294	11,735
May.....	3,197	1,241	838	30	377	3,966	583	816	245	11,298
June.....	2,806	931	767	633	920	3,691	558	707	196	11,208
Total.....	43,937	19,395	15,137	1,552	7,087	63,352	9,795	9,280	3,416	172,951

## APPENDIX VIII.

### REPORT OF THE AUDITOR.

OFFICE OF THE AUDITOR,  
*San Juan, August 31, 1912.*

SIR: I have the honor to submit the following report for the fiscal year ending June 30, 1912:

In compliance with the request of the Chief of the Bureau of Insular Affairs, which was seconded by the governor of Porto Rico, it is my design and intention to make this report as brief as possible, consistent with giving a fairly complete statement of the condition of the affairs of this office.

A tabulated report of the financial transactions of this office with supporting exhibits and schedules is appended as Exhibits A and B.

#### NEW SYSTEM OF AUDIT AND ACCOUNTING.

The new system of audit and accounting was fully elaborated in my last report, and it is not deemed necessary to go into the particulars thereof anew. In other words, it will not be necessary to review all the matters which were set forth so fully in my previous report.

It is sufficient to say that, in my opinion, the new system has fully vindicated itself in its application to the financial transactions of The People of Porto Rico. It was intended that it should be complete, thorough, and uniform, but at the same time so elastic in its application as to admit of minor changes wherever they should prove necessary. Such changes have been made with gratifying results, and I do not believe that any substantial changes in the plan which has been adopted and approved should be made.

Referring to the work of the various divisions, I have to report as follows:

#### DIVISION OF BOOKKEEPING AND WARRANTS.

This division, which must be regarded as the most important of this office, has faithfully observed the rules laid down by the new system of audits and examinations. The results have been eminently satisfactory, and I have no suggestion to make as to its future organization, except that in all probability an increase of at least two clerks will be needed, and it is recommended that the auditor, by action of the next legislative assembly, be authorized to make this increase.

#### DIVISION OF DISBURSEMENTS AND CLAIMS.

The work of this division, always important, has been largely increased, and its responsibility almost doubled, by virtue of the large number of vouchers sent in from the sanitation service. The appearance of bubonic plague in Porto Rico necessitated large drafts upon the resources of this Government, and in consequence an abnormally large number of vouchers were presented to this division for examination and audit. It affords me pleasure to state that the work has been done with patience and accuracy, and that I find no substantial grounds for criticism. In my opinion, however, it will be necessary to employ at least one more clerk, at a salary not to exceed \$900 per year, properly to perform the work of this division.

#### DIVISION OF RECEIPTS AND ACCOUNTS.

This division, which came into being as of July 1, 1911, has by the excellence of its work proved the wisdom of its organization. The chief thereof has suggested that there should be a change in the auditing of the accounts of the insular telegraph, and I concur in this recommendation. At present these accounts are rendered through the receiving clerk of the insular telegraph, who examines and checks them before submitting them for audit. They do not reach this office until a month after the one



to which they pertain, which necessarily causes some delay in this office, but without fault on the part of either the general office or the division of receipts. It is therefore suggested that this practice be discontinued, and that a new plan be devised providing for the direct report of the business done by the insular telegraph to the auditor's office.

#### DIVISION OF INTERNAL-REVENUE ACCOUNTS.

The work of this division has been marked by unusual excellence and accuracy, and I have never had occasion to review unfavorably any of its reports. It is not deemed necessary here to go into details of its work, which were fully set forth in my last annual report with specific outline of the changes inaugurated. These changes have been made successfully and have fully vindicated their necessity.

#### DIVISION OF PROPERTY ACCOUNTS.

Inasmuch as this division was practically established on July 1, 1911, it is deemed proper to make some special reference to its work. The manner of accounting was fully set forth in my previous report, and no review thereof is necessary at this time.

Its work has grown considerably. The total value of all property charged July 1, 1911, being \$705,340.84, as compared with \$1,320,652.45 June 30, 1912, an increase of \$615,311.61, or about 87 per cent. This is thought to be a most potent exemplification of the necessity for establishing this division and an indubitable commendation of the manner in which the accounts have been kept.

The system now in use in this department was adopted when it was seen that difficulty was experienced in obtaining property returns from the different offices, and it is now such that it can be carried on independently of all other offices. It is believed that if the property clerk in any office should fail properly to care for and keep check upon the property in his charge he should bear the blame for any unnecessary shortage occurring in such property. None but capable and responsible men should be placed in charge of the property of such an office, as the responsibility in some cases is very great.

#### DIVISION OF AUDITS AND EXAMINATIONS.

The work of this division was considerably hampered by the resignation of its chief about September 1, 1911. The qualifications required of the examiners in this division are so very high that I have found it difficult, in fact almost impossible, to find men who are entirely competent to perform the work required. The best possible under all the circumstances has been done, but the force is too small, and it is recommended that at least two well-qualified examiners be added.

A very considerable part of the time has been expended in making important audits of offices in San Juan, time which ordinarily would have been used in examining the various offices located elsewhere in the island. For instance, about July 1, 1911, it was found necessary to make a complete examination of the bureau of supplies, printing, and transportation with a view to correcting its records and establishing a new system of accounting. This work consumed more than three months, but was completed to my full satisfaction, and has proved to be the best system yet devised for keeping the accounts and records of that office.

It also became necessary to make a thorough examination of the bureau of insular telegraph; University of Porto Rico; insular fair board; department of labor, charities and correction (penitentiary); department of insular police (relief and uniform funds); and treasury department (financial and receiving clerk).

Notwithstanding this large draft upon the time of this division, examinations in the way of field work have been made of 4 district courts, 17 municipal courts, and 2 captains of ports.

Examiners are now in the field looking after various subordinate offices throughout the island. Their work is being conducted carefully and accurately and with as much expedition as the importance of the task will permit. It is intended that hereafter the more important courts shall be examined twice and the courts of inferior character at least once each year.

It is further suggested that the staff of this division might render valuable service in standardizing and unifying the methods and forms used by the various departments in the handling and recording of vouchers for payment and in the eliminating all unnecessary duplication of records in the departments and in the auditor's office.

It has again and again been necessary, owing to the great increase of work made necessary by the adoption of the new audit system, to take one or more men from this division and assign them to special emergency work in some other. In each case this work has been cheerfully performed by the men detailed, and I am much indebted to them for their contribution toward the establishment of the new audit system.

The recommendation made by my predecessor and seconded by myself, that the primary audit of the accounts appertaining to any department be submitted through the auditor's office, is renewed. As the matter now stands, several accounts originating in other offices are first gone over by their heads, and in no case are the original vouchers submitted to the auditor. In fact, he is limited to the acceptance of the statements prepared in those departments, and under all the circumstances he must regard the audit made in his office as unsatisfactory.

It is believed that all matters of audit should be concentrated in this office in order to make a systematic and synthetic whole and to secure absolute uniformity in passing all the accounts of the various financial officers of the Government of Porto Rico. It may be suggested that the change will be somewhat radical, but it is thought to be entirely consistent with the system which has been adopted, and certainly one entirely logical in its requirements and beneficial in its results.

Before closing, allusion should be made to the accounts of the University of Porto Rico. By executive orders made during 1911 the auditor was required to take over the auditing of the accounts of this institution, not merely of the funds properly belonging to the university, but also of what is known as the "Morrill fund" or the "university agricultural trust fund." Before the new system was inaugurated the secretary and treasurer of the university made his own reports as to the Morrill fund, direct to the commissioner of education, without any supervision by this office. Inasmuch as the original vouchers were not submitted to the commissioner of education, it was impossible under such a system to have an absolutely correct audit of the accounts of the university. The account submitted by the secretary and treasurer of that institution for the fiscal year 1912 was brought to this office for examination and for such correction as might prove necessary. The original account, with the corrections made in this office, was forwarded to the commissioner of education.

This system will altogether eliminate all future division of opinion between the authorities of the university and the auditor as to the proper disbursement of the funds of that institution and of the Morrill fund.

#### OFFICE FORCE.

During the past year no notable changes have taken place in the personnel of this office, except that the assistant auditor resigned about October 1, 1911, and was succeeded by Mr. L. A. Harkness, of Chicago, who has taken the oath of office and entered upon the discharge of his duties.

It affords me great pleasure to express my thanks to the assistant auditor, chiefs of divisions, auditor's secretary, and to each and every one of the employees of this office, for their industry and energy in the discharge of the duties of their offices and for their loyalty to the Government which has given them employment. To all is due credit in large measure for whatever success has been attained in this department during the fiscal year just ended.

Respectfully submitted.

J. W. BONNER,  
*Auditor of Porto Rico.*

The GOVERNOR OF PORTO RICO,  
*San Juan, P. R.*

#### EXHIBIT A.

*Condition of the insular treasury at the beginning and close of the fiscal year ending June 30, 1912.*

Cash balance at the beginning of business July 1, 1911,  
distributed in the following depositories:

In San Juan, P. R.—

American Colonial Bank.....	\$816, 987. 29
Royal Bank of Canada.....	975, 000. 00
First National Bank.....	100, 000. 00
Union Bank of Halifax.....	250, 000. 00
Banco de Puerto Rico.....	100, 000. 00
Banco Territorial y Agrícola.....	15, 000. 00

Total..... 2, 056, 987. 29

In Ponce, P. R.—

Credito y Ahorro Ponceño.....	50, 000. 00
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Cash balance at the beginning of business July 1, 1911,  
distributed in the following depositories—Contd.

In New York City, N. Y.—

J. & W. Seligman & Co.....	\$1,500,000. 00
National City Bank of New York.....	408,456. 96

Total.....	\$4,015,444. 25
Total receipts of the treasurer, fiscal year ending June 30, 1912 (see Exhibit B).....	7,816,160. 98
Total to be accounted for.....	11,831,605. 23

Total disbursements on warrants by the treasurer, fiscal year ending June 30, 1912 (see Exhibit B)..... 8,708,222. 09

Cash balance at the close of business June 30, 1912, distributed in the following depositories:

In San Juan, P. R.—

American Colonial Bank.....	\$866,099. 60
Royal Bank of Canada.....	750,000. 00
Bank of Nova Scotia.....	250,000. 00
Banco de Puerto Rico.....	100,000. 00
Banco Territorial y Agricola.....	15,000. 00

Total.....	1,981,099. 60
In Ponce, P. R.—	
Credito y Ahorro Ponceño.....	50,000. 00
In New York City, N. Y.—	
J. & W. Seligman & Co.....	1,400,000. 00
Total.....	3,431,099. 60
Less outstanding vouchers and pay checks.....	307,716. 46
	3,123,383. 14

Total as above.....	11,831,605. 23
This cash balance of the insular Government is composed as follows:	
Insular revenues available for expenditures under authority of legislative appropriations.....	1,794,554. 46
Trust funds.....	1,328,828. 68
Total as above.....	3,123,383. 14

#### EXHIBIT B.

*Receipts and disbursements on warrants of the insular Government for the fiscal year ending June 30, 1912.*

#### RECEIPTS.

Insular revenues:

Customs (Schedule No. 1).....	\$1,180,592. 90
Internal revenue (Schedule No. 2).....	2,778,231. 32
Miscellaneous (Schedule No. 3).....	410,339. 73
Repayments by municipalities on account of loans (see Exhibit C).....	74,974. 82
Repayments by school boards on account of loans (see Exhibit D).....	35,098. 13
Repayments to appropriations (Schedule No. 4)...	956,159. 19
Transfers to insular revenues.....	827. 34

Total insular revenue receipts..... \$5,436,223. 43

Trust funds:

Taxes collected for municipalities by the insular Government (Schedule No. 5).....	1,763,056. 92
Miscellaneous (Schedule No. 6).....	533,127. 68
Transfers.....	83,752. 96

Total trust fund receipts..... 2,379,937. 55

Total receipts of the insular treasury..... 7,816,160. 98

## DISBURSEMENTS ON WARRANTS.

## Insular revenues:

Legislative (Schedule No. 7).....	\$58, 673. 37
Executive (Schedule No. 8).....	4, 022, 807. 95
Judicial (Schedule No. 9).....	461, 383. 91
Miscellaneous (Schedule No. 10).....	127, 687. 61
Loans to municipalities (see Exhibit C).....	32, 700. 00
Loans to school boards (see Exhibit D).....	294. 60
Transfers.....	83, 752. 95
Repayments to appropriations.....	68, 369. 25

Total insular revenue expenditures..... \$4, 855, 669. 64

## Trust funds:

Payments to municipalities of taxes collected for them by the insular Government (Schedule No. 11).....	1, 758, 127. 09
Road bond fund (Schedule No. 12).....	319, 546. 04
Miscellaneous (Schedule No. 13).....	1, 685, 821. 03
Repayments to appropriations.....	88, 230. 95
Transfers.....	827. 34

Total trust fund expenditures..... 3, 852, 552. 45

Total expenditures of the insular treasury..... 8, 708, 222. 09

SCHEDULE No. 1.—*Insular revenue receipts—customs—for the fiscal years ending June 30, 1912 and 1911.*

Months.	1912	1911
July.....	\$75, 000. 00	\$100, 000. 00
August.....	120, 000. 00	92, 000. 00
September.....	47, 000. 00	70, 000. 00
October.....	115, 000. 00	109, 000. 00
November.....	125, 000. 00	95, 000. 00
December.....	130, 000. 00	100, 000. 00
January.....	127, 000. 00	95, 000. 00
February.....	95, 000. 00	110, 407. 96
March.....	109, 587. 90	90, 000. 00
April.....	80, 005. 00	60, 000. 00
May.....	90, 000. 00	80, 065. 28
June.....	67, 000. 00	73, 525. 76
Total.....	1, 180, 562. 90	1, 065, 998. 96

SCHEDULE No. 2.—*Insular revenue receipts—Internal revenue—For the fiscal years ending June 30, 1912, and June 30, 1911.*

Months.	Inheritance tax.	Property tax.	Excise tax.		Total.
			Tobacco.	Other.	
July.....	\$2, 441. 55	\$231. 87	\$16, 955. 45	<sup>1</sup> \$165, 642. 26	\$185, 261. 13
August.....	4, 705. 30	15, 602. 59	16, 571. 65	153, 590. 50	190, 770. 04
September.....	737. 99	49, 823. 22	16, 585. 65	165, 460. 82	232, 607. 68
October.....	1, 003. 85	10, 979. 33	17, 066. 67	235, 991. 83	265, 041. 68
November.....	672. 88	5, 684. 06	17, 539. 25	183, 868. 27	207, 764. 45
December.....	812. 29	3, 377. 78	18, 769. 70	193, 621. 14	216, 580. 91
January.....	1, 947. 04	7, 800. 64	19, 967. 69	256, 380. 96	286, 096. 33
February.....	15, 440. 58	44, 742. 08	20, 506. 41	173, 347. 66	254, 036. 68
March.....	636. 55	13, 188. 21	20, 428. 56	207, 188. 58	241, 441. 90
April.....	2, 232. 97	5, 939. 42	20, 495. 40	251, 381. 28	280, 049. 67
May.....	2, 427. 64	2, 753. 86	20, 744. 90	199, 030. 17	224, 956. 57
June.....	3, 381. 42	2, 763. 71	17, 433. 90	<sup>2</sup> 170, 203. 08	193, 782. 11
Total for year ending June 30, 1912.....	36, 440. 06	162, 876. 71	223, 365. 23	2, 355, 706. 55	2, 778, 388. 55
Total for year ending June 30, 1911.....	15, 161. 42	136, 408. 09	202, 128. 79	2, 217, 751. 72	2, 571, 450. 02

<sup>1</sup> Includes \$148. 83 paid under protest and awaiting disposition.

<sup>2</sup> Includes \$8.40 paid under protest and afterwards refunded.

SCHEDULE NO. 3.—*Insular revenue receipts—Miscellaneous—For the fiscal years ending June 30, 1912, and June 30, 1911.*

TOLLS COLLECTED BY BUREAU OF INSULAR TELEGRAPH.

	1912	1911
July .....	\$5,600.15	\$5,191.09
August .....	5,355.26	5,000.91
September .....	2,572.43	4,873.01
October .....	5,369.68	5,423.64
November .....	5,601.86	5,367.98
December .....	5,888.77	6,563.59
January .....	6,224.41	5,496.88
February .....	5,968.34	5,394.43
March .....	5,967.35	5,927.26
April .....	8,915.49	5,374.44
May .....	5,470.25	5,580.99
June .....	8,137.07	6,364.66
Total .....	71,072.16	66,252.88

COLLECTIONS BY THE TREASURER.

Interest on daily bank balances .....	\$63,750.51	\$41,779.59
Taxes on insurance premiums .....	16,627.50	24,911.45
Payments on franchises, taxes, or royalties .....	13,019.31	15,520.88
Rents from Government property .....	10,330.34	10,982.51
Interest on loans to municipalities .....	8,187.92	10,672.80
Interest on loans to school boards .....	3,063.44	4,038.33
License fees of foreign corporations .....	776.00	5,275.00
Sales of Government property .....	27,812.12	3,584.65
Rents from escheated property .....	1,419.73	3,567.72
Annual rents, canons on mines .....	912.56	1,160.88
Sale of confiscated property .....	29.42	65.41
Road fines .....	28.25	5.00
Sundries .....	561.31	567.27
Motor vehicle licenses .....	1,048.00	5,504.00
Total .....	148,566.41	137,635.49

COLLECTED BY VARIOUS OFFICERS.

Clerk of the United States district court, fees and fines .....	\$3,797.69	\$3,568.54
Insular school for training nurses, earnings by nurses .....	25.00	438.02
Secretary board of dental examiners, examination fees .....	125.00	75.00
Treasurer board of pharmacy examiners, examination fees .....	170.00	175.00
Treasurer board of medical examiners, examination fees .....	714.00	530.00
Special disbursing officer for Porto Rico, Washington, D. C., interest on daily balances .....	460.18	236.27
Property clerk, insular police, collections on account of property lost by policemen .....	545.23	46.44
Secretary-reporter supreme court, sale of Porto Rico reports and subscription to advance sheets and digest .....	690.69	.....
Supervisor of health, registering pharmaceutical formulas .....	.....	200.00
Department of the interior, collections on account of lost property .....	.....	33.82
Total .....	6,527.60	5,606.29

<sup>1</sup> Effective Oct. 1, 1911, the collection of these fees direct was discontinued and revenues collected instead through the affixing to the application for the license of revenue stamps and cancellation thereof. Fees are, therefore, included in stamp sales from and after the above date.

SCHEDULE No. 3.—*Insular revenue receipts—Miscellaneous—For the fiscal years ending June 30, 1912, and June 30, 1911—Continued.*

## COLLECTIONS BY SECRETARIES AND MARSHALS OF INSULAR COURTS.

	1912		1911		
	Fees and fines, secretaries.	Fees, marshals.	Fees and fines, secretaries.	Fees, marshals.	Sundries.
<b>District courts:</b>					
San Juan	\$12,422.07	\$994.73	\$8,555.92	\$661.62	
Ponce	4,231.99	1,021.08	5,508.36	770.83	
Mayaguez	6,631.84	629.56	6,129.35	676.72	\$12.25
Humacao	4,830.18	1,275.37	3,208.25	650.91	
Arecibo	4,016.56	573.35	3,450.47	713.93	
Guayama	4,583.57	524.89	3,694.51	759.96	
Aguedilla	2,579.14	243.38	2,038.25	316.37	
<b>Total</b>	<b>39,396.35</b>	<b>5,562.36</b>	<b>32,585.11</b>	<b>4,550.33</b>	<b>12.25</b>
<b>Municipal courts:</b>					
San Juan	8,903.45	661.82	7,493.09	656.12	
Carolina	1,831.87	68.85	1,421.99	52.15	
Bayamon	4,455.62	200.14	2,598.15	292.82	
Vega Baja	776.13	88.04	841.52	69.20	
Arecibo	5,036.43	480.17	3,364.92	341.72	
Camuy	378.97	45.05			
Manati	4,235.08	239.59	2,940.14	198.31	
Utua	2,125.45	239.10	1,523.13	139.35	
Aguedilla	2,076.62	401.75	1,145.00	337.36	
San Sebastian	631.92	144.03	432.19	71.09	
Lares	700.11	130.21	993.38	110.80	
Mayaguez	2,696.48	791.44	4,283.09	447.45	.70
Afasco	1,291.32	58.65	927.78	69.59	
Cabo Rojo	2,244.12	223.70	1,324.83	105.82	
San German	2,309.13	446.40	2,741.24	370.65	
Ponce	3,138.60	497.41	2,672.25	287.92	
Yanco	1,899.75	337.52	1,394.05	111.01	13.44
Adjuntas	497.06	65.85	335.67	79.11	
Casco	883.06	35.85	923.69	154.25	
Barros	675.48	24.50	441.49	20.80	
Guayama	1,887.55	478.25	1,738.61	426.30	
Salinas	2,173.43	264.26	1,312.38	133.50	
Cayey	5,396.72	232.03	2,631.64	260.88	
Humacao	2,844.75	164.06	1,697.36	184.51	
Fajardo	3,083.20	130.12	2,009.62	72.85	112.00
Yabucoa	1,902.31	269.45	1,303.03	296.24	
Caguas	4,401.96	334.56	2,238.12	166.93	
San Lorenzo	2,014.39	83.65	1,681.71	110.29	
Vieques	1,691.50	192.34	2,261.27	55.95	
Juana Diaz	2,294.09	192.48	695.23	52.45	
Patillas	1,203.30	83.67	459.72	21.86	
Rio Grande	1,602.39	80.39			
<b>Total</b>	<b>77,337.26</b>	<b>7,683.33</b>	<b>55,814.29</b>	<b>5,687.28</b>	<b>126.14</b>

Total collections by secretaries district and municipal courts.....\$116,733.61

Total collections by marshals district and municipal courts.....13,245.69

Total.....129,979.30

## COLLECTION OF HARBOR FEES BY CAPTAINS OF PORTS.

Months.	San Juan.	Ponce.	Mayaguez.	Total.
July	\$4,597.91	\$320.15	\$670.66	\$5,588.72
August	3,672.87	458.26	268.45	4,399.58
September	3,111.08	698.03	292.00	4,101.11
October	3,407.57	291.86	388.90	4,088.23
November	2,750.11	328.04	209.74	3,287.89
December	649.53	159.93	239.43	1,048.89
January	4,005.40	953.59	266.29	5,225.28
February	4,556.02	500.62	761.87	5,818.41
March	2,492.68	292.13	227.88	3,012.69
April	8,096.23	658.47	441.96	9,196.66
May	3,817.36	330.32	367.69	4,555.37
June	3,261.78	248.81	321.84	3,832.43
<b>Total for year ending June 30, 1912</b>	<b>44,418.54</b>	<b>5,290.11</b>	<b>4,456.61</b>	<b>54,165.26</b>
<b>Total for year ending June 30, 1911</b>	<b>41,595.74</b>	<b>5,248.79</b>	<b>4,082.28</b>	<b>50,926.81</b>

SCHEDULE NO. 3.—*Insular revenue receipts—Miscellaneous—For the fiscal years ending June 30, 1911, and June 30, 1911—Continued.*

RECAPITULATION.

	1912	1911
Tolls collected by bureau of insular telegraph.....	\$71,072.16	\$66,352.83
Collections by the treasurer of Porto Rico.....	148,595.41	127,635.41
Collections by secretaries and marshals of insular courts.....	129,979.30	98,775.47
Collections of harbor fees by captains of ports.....	54,165.26	50,926.81
Collections by the clerk of the United States District Court.....	3,797.69	3,668.54
Insular school for training nurses.....	25.00	438.02
Secretary treasurer board of dental examiners.....	125.00	75.00
Treasurer board of pharmacy examiners.....	170.00	175.01
Treasurer board of medical examiners.....	714.00	830.01
Collections by special disbursing officer for Porto Rico, Washington, D. C., interest on daily balances.....	460.18	239.27
Collections by insular police on account of lost property.....	545.23	46.04
Secretary reporter supreme court, sale of Porto Rico reports, etc.....	680.50	.....
Supervisor of health, registering of pharmaceutical formulas.....	.....	200.01
Department of the interior, collections on account of lost property.....	.....	33.82
Total miscellaneous receipts.....	410,339.73	340,296.87

SCHEDULE NO. 4.—*Insular revenue receipts—Repayments to appropriations—For the fiscal year ending June 30, 1912.*

<b>Repayments made by officers to various appropriations:</b>		
Treasurer of Porto Rico.....	\$31,329.09	
Commissioner of education.....	226.01	
Secretary treasurer, University of Porto Rico.....	91.93	
Assistant director of labor, charities, and correction.....	1.25	
Department of the interior.....	293.53	
Marshal, United States District Court, as special disbursing officer.....	291.50	
Secretaries, district courts, as special disbursing officers..	8,300.00	
Special disbursing officers for—		
Department of the interior.....	24,031.11	
Insular fair board.....	2,026.08	
Construction of College of Agriculture and Mechanical Arts.....	956.19	
Exhibit of Porto Rican products in New York.....	367.12	
Repatriation of Porto Ricans from Mexico.....	9.47	
Sugar commission.....	444.84	
A. T. Ruan, special disbursing officer for The People of Porto Rico, Washington.....	1.13	
Total.....		\$68,369.25
<b>Repayments of the nature of miscellaneous receipts made by various officers to appropriations:</b>		
<b>Treasurer of Porto Rico—</b>		
Sales, refunds, and sundries, bureau of supplies, printing and transportation.....	684,379.87	
Collections from municipalities for sanitation service.....	189,639.88	
Repayments from various sources.....	1,751.66	
Secretary treasurer, University of Porto Rico, sale of supplies, etc.....	63.37	
Supervisor of charities, pay patients, insane asylum.....	8,198.67	
Department of the interior, sale of automobile badges and sundries.....	1,114.60	
Department of education, common-school equipment, sale school supplies, etc.....	2,153.38	
Property clerk, insular police, uniforms.....	67.28	
A. T. Ruan, special disbursing officer, for The People of Porto Rico, Washington.....	393.23	
Marshal, United States District Court, as special disbursing officer.....	28.00	
Total.....		887,789.94
Total repayments.....		956,159.19

**SCHEDULE No. 5.—Trust and receipts—Taxes collected for municipalities by the insular Government for the fiscal years ending June 30, 1912, and June 30, 1911.**

**MUNICIPAL PROPERTY TAX AND MUNICIPAL SCHOOL TAX.**

Months.	Municipal property tax.			School tax.	Total.
	General fund.	Road fund.	School fund.		
July.....	\$1,334.18	\$155.78	\$496.66	\$156.62	\$2,143.24
August.....	96,891.61	11,564.52	36,152.01	16,047.57	160,655.71
September.....	182,945.70	19,183.68	67,376.51	29,918.64	299,424.53
October.....	153,819.84	17,683.25	57,167.72	25,205.23	253,876.04
November.....	45,507.76	5,177.89	16,895.18	7,349.91	74,930.74
December.....	29,525.38	3,390.86	10,972.17	4,826.46	48,714.87
January.....	27,871.81	2,989.09	10,287.02	4,526.22	45,674.14
February.....	165,181.82	17,287.23	60,822.96	26,924.48	270,216.49
March.....	191,167.88	22,107.10	71,091.79	31,464.21	315,830.98
April.....	53,795.07	6,098.29	19,964.49	8,701.86	88,649.71
May.....	16,439.14	1,742.81	6,060.61	2,604.08	26,846.64
June.....	16,704.84	1,948.64	6,217.85	2,744.89	27,616.22
Total for the year ending June 30, 1912.....	961,135.03	109,329.14	363,504.97	160,560.17	1,614,579.31
Total for the year ending June 30, 1911.....	820,942.53	90,972.19	303,971.43	130,476.33	1,346,362.48

**MUNICIPAL BOND REDEMPTION TAX.**

Months.	San Juan.	Mayaguez.	Ponce.	Arecibo.	Total.
July.....	\$47.08	\$440.56	\$37.36	\$3.34	\$528.34
August.....	61.45	161.43	887.94	1,391.83	2,502.65
September.....	26,412.07	8,605.73	6,656.63	3,488.00	45,162.43
October.....	6,786.16	2,858.34	3,280.44	2,071.40	14,996.34
November.....	2,539.98	2,207.87	926.49	532.16	6,206.52
December.....	1,335.90	1,534.39	896.41	404.91	4,171.61
January.....	3,364.05	436.99	752.89	286.46	4,840.39
February.....	24,179.21	4,043.73	4,357.88	1,806.39	34,387.21
March.....	7,141.00	6,225.27	5,875.29	4,648.56	23,890.12
April.....	3,228.33	1,847.87	1,352.93	723.24	7,152.37
May.....	2,195.27	965.84	580.24	193.13	3,934.58
June.....	466.45	109.35	65.87	3.38	705.05
Total for the year ending June 30, 1912.....	77,757.05	29,497.37	25,670.37	15,552.82	148,477.61
Total for the year ending June 30, 1911.....	93,315.77	27,915.66	23,668.36	11,508.29	156,438.08

**SCHEDULE No. 6.—Trust-fund receipts—Miscellaneous—For the fiscal years ending June 30, 1912, and June 30, 1911.**

Insular bond redemption tax.....	\$177,270.43
Salaries, treasury agents.....	386.67
Teachers' pension fund.....	748.90
Cash bond deposits.....	6,095.00
Sale of articles, Girls' Charity School.....	154.90
Sale of articles and work done, Boys' Charity School.....	1,798.95
Sale of articles, penitentiary.....	1,352.60
Special deposits:	
José Santos.....	33.00
San Juan-Rio Piedras Road.....	16.00
Juan R. Baiz.....	1,012.25
Taxes paid under protest.....	119,814.07
American Surety Co., collected on account of Antonio A. Rodas, late collector of internal revenue at Adjuntas.....	24.02
Funds for insular fair.....	32,270.18
University fund.....	8,363.10
University agricultural fund.....	50,425.00
Irrigation fund.....	90,849.12
Outstanding liabilities.....	2,930.21



School-building fund.....	\$7,987.53
School extension in Porto Rico:	
General account.....	2,160.51
Repairs to Aibonito Barracks.....	208.44
Municipal bond fund:	
Yauco.....	2,025.00
Ponce.....	8,775.00
Construction of schoolhouse:	
Aguada.....	42.47
Vega Alta.....	434.44
Trujillo Alto.....	132.44
Proceeds of sale of insular bonds for road construction.....	16,729.20
Franchise deposits.....	1,088.25

Total for the year ending June 30, 1912..... 533,127.68

Total for the year ending June 30, 1911..... 808,308.65

**SCHEDULE No. 7.—Insular revenue expenditures—Legislative—For the fiscal year ending June 30, 1912, on account of fiscal years 1912, 1911, and 1910.**

	On account of appropriations for—		Total expenditures, 1912
	1912	1910 and 1911	
<b>Executive Council:</b>			
Salaries.....	\$26,422.83	.....	\$26,422.83
Temporary employees.....	2,095.25	.....	2,095.25
Contingent expenses—			
Incidentals.....	1,266.33	\$24.45	1,290.78
Printing and publication of laws.....	663.28	1,828.71	2,491.99
Repairs and furniture.....	1,230.70	.....	1,230.70
Total, Executive Council.....	31,678.39	1,853.16	33,531.55
<b>House of Delegates:</b>			
Salaries.....	18,988.76	.....	18,988.76
Temporary employees.....	2,425.94	.....	2,425.94
Contingent expenses—			
Legislative printing.....	1,150.04	.....	1,150.04
Incidentals.....	1,460.32	85.39	1,545.71
Purchase of books for library, etc.....	379.92	.....	379.92
Mileage for members.....	284.60	.....	284.60
Purchase of books for the Legislative Assembly.....	250.00	.....	250.00
Payment of expenses of members of House of Delegates when acting on commissions.....	116.85	.....	116.85
Total, House of Delegates.....	26,066.43	85.39	26,151.82
Total legislative expenditures.....	56,734.82	1,938.55	58,673.37

**SCHEDULE No. 8.—Insular revenue expenditures—Executive—for the fiscal year ending June 30, 1912, on account of fiscal years 1912, 1911, and 1910.**

	On account of appropriations for—		Total expenditures, 1912.
	1912	1910 and 1911	
<b>Office of the governor:</b>			
Salaries.....	\$11,630.68	.....	\$11,630.68
Contingent expenses.....	1,546.54	\$49.38	1,595.92
Total, office of the governor.....	12,177.22	49.38	12,226.60
<b>Office of the secretary:</b>			
Salaries.....	23,774.15	.....	23,774.15
Contingent expenses, incidentals.....	3,778.44	145.16	3,923.60
Bureau of supplies, printing, and transportation; working capital fund.....	654,597.78	5,780.12	660,377.90
Publication of the Official Gazette.....	4,936.52	578.42	5,514.94
Total, office of the secretary.....	687,086.89	6,503.70	693,590.59

SCHEDULE No. 8.—*Insular revenue expenditures—Executive—for the fiscal year ending June 30, 1912, on account of fiscal years 1912, 1911, and 1910—Continued.*

	On account of appropriations for—		Total expenditures, 1912.
	1912	1910 and 1911	
<b>Office of the attorney general:</b>			
Salaries.....	\$31,713.51		\$31,713.51
Contingent expenses.....	6,027.03	\$28.11	6,055.14
Publication of the reports and opinions of the attorney general of Porto Rico.....	697.01		697.01
Total, office of attorney general.....	38,437.55	28.11	38,465.66
<b>Office of the treasurer:</b>			
Salaries, office of the treasurer.....	118,940.93		118,940.93
Salaries, collectors of internal revenue.....	61,648.75		61,648.75
Contingent expenses—			
Incidentals.....	11,979.52	3,785.68	15,765.20
Postage.....	2,908.75	50.05	2,958.80
Traveling expenses—			
Bureau of accounts.....	1,082.80		1,082.80
Bureau of municipal finance.....	657.39		657.39
Internal revenue agents.....	7,390.20	95.52	7,485.72
Care of horses for internal-revenue agents.....	6,413.67	40.00	6,453.67
Traveling expenses, assessors.....	6,756.44	56.66	6,813.10
Care of horses, assessors.....	3,673.65	30.00	3,703.65
Office rent of collectors.....	531.65	10.00	541.65
Total, office of the treasurer.....	221,963.75	4,067.91	226,031.66
<b>Office of the auditor:</b>			
Salaries.....	42,851.34		42,851.34
Contingent expenses—			
Incidentals.....	2,144.70	1,358.91	3,503.61
Postage.....	300.00		300.00
Inspection and traveling expenses.....	663.67		663.67
Blank forms.....	810.18	575.07	1,385.25
Total, office of the auditor.....	46,769.89	1,933.98	48,703.87
<b>Office of the commissioner of the interior:</b>			
Salaries.....	71,876.87		71,876.87
Compensation to pilots acting as captains of ports.....	775.94		775.94
Contingent expenses—			
Incidentals.....	8,145.25	121.96	8,267.21
Postage.....	1,638.20	2.53	1,640.73
Traveling expenses.....	10,167.88	206.12	10,374.00
Purchase and repair of instruments.....	867.56	191.14	1,058.70
Expenses, division of public lands.....	1,960.44	.13	1,960.57
Total, office of the commissioner.....	95,432.14	521.90	95,954.04
<b>Construction, maintenance, and repair of public roads and bridges.....</b>	<b>300,500.90</b>	<b>3,967.49</b>	<b>304,468.39</b>
<b>Maintenance and repair of public buildings—</b>			
Care of buildings.....	19,094.48	4,376.29	23,470.77
Water for buildings.....	1,038.47	20.80	1,059.27
Electric light for buildings.....	2,146.84		2,146.84
Expenses, executive mansion.....	12,473.49	223.64	12,697.13
Total.....	335,244.18	8,588.22	343,832.40
<b>Bureau of insular telegraph:</b>			
Salaries.....	50,388.66		50,388.66
Contingent expenses—			
Rent of offices.....	1,772.50	62.00	1,834.50
Lighting.....	499.67	2.70	502.37
Purchase of material.....	4,925.78	1,406.62	6,332.40
Reconstruction and extension.....	2,422.26	180.83	2,603.09
Transportation and subsistence.....	1,048.29	32.97	1,081.26
Freight and wagon transportation.....	1,356.93	39.35	1,396.28
Printing and stationery.....	1,603.60		1,603.60
Purchase, maintenance, or hire of horses and oxen.....	219.33	11.00	230.33
Postage.....	327.00		327.00
Incidentals.....	1,647.75	170.83	1,818.58
Extension, maintenance, and operation of insular telegraph and telephone system.....	13,636.37		13,636.37
Total, bureau of insular telegraph.....	79,848.14	1,906.30	81,754.44

SCHEDULE No. 8.—*Insular revenue expenditures—Executive—for the fiscal year ending June 30, 1912, on account of fiscal years 1912, 1911, and 1910—Continued.*

	On account of appropriations for—		Total expenditures, 1912
	1912	1910 and 1911	
Miscellaneous expenditures under direction of the commissioner of the interior:			
Work on insular roads—			
Construction of various roads.....	\$40.00	.....	\$40.00
Insular road and bridge construction.....	66,343.12	.....	66,343.12
Survey and study for widening San Juan-Rio Piedras Road.....	2,182.51	.....	2,182.51
Survey of lands belonging to The People of Porto Rico.....	483.84	.....	483.84
Construction of certain bridges and culverts on Road No. 3.....	3,715.27	.....	3,715.27
Total, work on insular roads.....	72,764.74	.....	72,764.74
Study of methods for irrigating the plains of Cabo Rojo and Lajas.....	69.42	.....	69.42
Construction of artesian wells in Porto Rico.....	2,579.43	.....	2,579.43
Construction of San Anton Bridge.....	500.00	.....	500.00
Total.....	3,148.85	.....	3,148.85
Construction and repair of public buildings—			
Construction of reform school buildings.....	4,524.12	\$4,589.53	9,113.65
Construction of a model penitentiary.....	350.00	.....	350.00
Construction of College of Agriculture and Mechanical Arts.....	11,611.75	.....	11,611.75
Purchase and construction of rural school buildings.....	4,495.00	.....	4,495.00
Total.....	20,980.87	4,589.53	25,570.40
Construction and repair of docks and piers—			
Repair of bulkhead and water front of San Juan.....	24.29	.....	24.29
Repair, maintenance, and construction, of docks, bulkheads, and water fronts.....	4,682.89	.....	4,682.89
Repair of the Government pier at Ponce.....	23.00	.....	23.00
Study for construction of a breakwater in Aguadilla Harbor.....	1,456.63	.....	1,456.63
Study of project for the improvement of the port of Arecibo.....	982.13	.....	982.13
Study for improvements, water front of San Juan Harbor.....	1,572.68	.....	1,672.68
Expenses of commission to secure Federal appropriation for dredging San Juan Harbor.....	3,000.00	.....	3,000.00
Construction and maintenance of a ferry across Bayamon River.....	41.43	.....	41.43
Total.....	11,883.05	.....	11,883.05
Total department of the interior.....	619,301.97	15,605.95	634,907.92
Office of the commissioner of education:			
Salaries.....	31,571.89	66.67	31,638.56
Contingent expenses—			
Postage.....	945.00	.....	945.00
Incidentals.....	7,432.07	925.87	8,357.94
Total office of the commissioner.....	39,948.96	992.54	40,941.50
Public schools—			
Common schools—			
Salaries.....	773,929.64	15.00	773,944.64
Contingent expenses.....	7,993.95	1,352.69	9,346.64
Textbooks and school supplies.....	59,985.84	928.67	60,914.51
Common-school equipment.....	5,798.26	.....	5,798.26
High schools—			
Salaries.....	26,803.78	.....	26,803.78
Contingent expenses.....	4,472.60	6.25	4,478.85
Water, San Juan High School.....	59.40	3.30	62.70
Lighting, San Juan High School.....	26.75	.....	26.75
Total public schools.....	879,070.22	2,805.91	881,876.13
Funds for the University of Porto Rico.....	49,156.52	6,831.84	55,988.36
Scholarships in University of Porto Rico.....	9,184.51	62.68	9,247.19
Construction of building at University of Porto Rico.....	.....	8,273.60	8,273.60
Salaries, office board of trustees, University of Porto Rico.....	550.00	.....	550.00

# REPORT OF THE COMMISSIONER

1912

SCHEDULE No. 2.—*Public welfare expenditures—Expenditures for the fiscal year ending June 30, 1912, on account of fiscal years 1911, 1912, and 1913 (continued)*

	The sum of the appropriate items for		Final report made for
	1912	1912 and 1913	
<b>Office of the commissioner of education—Continued.</b>			
Expenses, office board of trustees, University of Porto Rico.....	\$100.00	.....	\$100.00
Scholarships, College of Agriculture, University of Porto Rico.....	1,000.00	.....	1,000.00
Expenses of encampment of public-school cadets of Porto Rico.....	300.00	.....	300.00
<b>Total.....</b>	<b>61,000.00</b>	<b>\$13,100.00</b>	<b>74,100.00</b>
<b>Support of deserving students—</b>			
Instruction and training of young men and women from Porto Rico in the United States.....	8,400.00	.....	8,400.00
Technical education of Porto Rican students in the United States.....	4,828.33	.....	4,828.33
Education of young Porto Rican women in the United States.....	1,000.00	.....	1,000.00
Scholarships in the high schools of Porto Rico.....	8,000.00	.....	8,000.00
Honorary scholarship for Rafael Palmer.....	400.00	.....	400.00
<b>Total support of deserving students.....</b>	<b>21,628.33</b>		<b>21,628.33</b>
<b>Miscellaneous expenditures—</b>			
Summer institutes and general lecture work.....	600.00	.....	600.00
<b>Total miscellaneous expenditures.....</b>	<b>600.00</b>		<b>600.00</b>
<b>Total department of education.....</b>	<b>1,006,172.00</b>	<b>19,400.00</b>	<b>1,025,572.00</b>
<b>Office of labor, charities, and correction:</b>			
Office of director—			
Salaries.....	22,472.10	.....	22,472.10
Contingent expenses—			
Traveling expenses.....	186.21	84.00	270.21
Transportation of prisoners.....	200.00	1.00	201.00
Lighting.....	128.33	.....	128.33
Printing.....	601.84	40.00	641.84
Incidentals.....	2,367.67	20.00	2,387.67
<b>Total office of director.....</b>	<b>26,455.95</b>	<b>145.00</b>	<b>26,600.95</b>
<b>Charitable institutions—</b>			
Blind asylum—			
Salaries.....	6,000.00	.....	6,000.00
Contingent expenses—			
Subsistence.....	6,000.00	.....	6,000.00
Clothing, bedding, etc.....	2,000.00	20.00	2,020.00
Water.....	400.00	.....	400.00
<b>Total.....</b>	<b>14,400.00</b>	<b>20.00</b>	<b>14,420.00</b>
Deaf asylum—			
Salaries.....	10,000.00	20.00	10,020.00
Contingent expenses—			
Subsistence.....	10,000.00	.....	10,000.00
Clothing, bedding, etc.....	4,000.00	40.00	4,040.00
Water.....	100.00	.....	100.00
Lighting.....	100.00	.....	100.00
Transportation of patients.....	100.00	.....	100.00
Installation of water.....	100.00	.....	100.00
<b>Total.....</b>	<b>24,300.00</b>	<b>60.00</b>	<b>24,360.00</b>
<b>Other Charitable Institutions—</b>			
Salaries.....	2,000.00	.....	2,000.00
Contingent expenses—			
Subsistence.....	2,000.00	.....	2,000.00
Clothing, bedding, etc.....	1,000.00	.....	1,000.00
Water.....	100.00	.....	100.00
Lighting.....	100.00	.....	100.00
<b>Total.....</b>	<b>5,200.00</b>		<b>5,200.00</b>

SCHEDULE NO. 8.—*Insular revenue expenditures—Executive—for the fiscal year ending June 30, 1912, on account of fiscal years 1912, 1911, and 1910—Continued.*

	On account of appropriations for—		Total expenditures, 1912.
	1912	1910 and 1911	
Office of labor, charities, and correction—Continued.			
Office of director—Continued.			
Boys' Charity School—			
Salaries.....	\$14,371.33		\$14,371.33
Contingent expenses—			
Subsistence.....	13,394.14		13,394.14
Clothing, bedding, etc.....	9,277.97	\$5.85	9,283.82
Equipment and supplies for industrial teaching.....	496.36	13.02	499.38
Water.....	1,019.08		1,019.08
Lighting.....	721.52		721.52
Visiting physician for charity schools.....	458.33		458.33
	39,728.73	18.87	39,747.60
Total, charitable institutions.....	132,088.66	440.06	132,478.74
Penal institutions—			
Reform School—			
Salaries.....	9,288.40		9,288.40
Contingent expenses—			
Subsistence.....	4,896.06		4,896.06
Equipment.....	959.24	500.00	1,459.24
Clothing, bedding, etc.....	1,745.98		1,745.98
Transportation.....	1,529.03		1,529.03
	18,418.71	500.00	18,918.71
Penitentiary—			
Salaries.....	16,612.64		16,612.64
Contingent expenses—			
Food for prisoners.....	15,958.07		15,958.07
Clothing, etc.....	6,691.89		6,691.89
Saving fund.....	1,893.32	18.00	1,911.41
Purchase of raw material.....	1,478.80		1,478.89
Incidentals.....	5,742.81	8.96	5,751.77
Water.....	1,599.80		1,599.80
Lighting.....	1,562.77		1,562.77
	51,540.10	27.14	51,567.24
San Juan Jail—			
Salaries.....	7,420.88		7,420.88
Contingent expenses—			
Food for prisoners.....	7,482.05		7,482.05
Lighting.....	357.55		357.55
Incidentals.....	1,126.05	4.53	1,130.58
	16,386.53	4.53	16,391.06
Ponce Jail—			
Salaries.....	5,968.99	30.00	5,998.99
Contingent expenses—			
Food for prisoners.....	5,623.88		5,623.88
Lighting.....	315.46		315.46
Water.....	220.00		220.00
Incidentals.....	653.53		653.53
	12,781.86	30.00	12,811.86
Mayaguez Jail—			
Salaries.....	5,744.99		5,744.99
Contingent expenses—			
Food for prisoners.....	4,640.79		4,640.79
Water.....	75.00		75.00
Lighting.....	326.39		326.39
Incidentals.....	620.54		620.54
	11,407.71		11,407.71
Humacao Jail—			
Salaries.....	4,834.00		4,834.00
Contingent expenses—			
Food for prisoners.....	2,792.98		2,792.98
Rent of jail.....	660.00		660.00
Lighting.....	195.04		195.04
Incidentals.....	675.82		675.82
	9,157.84		9,157.84

**SCHEDULE NO. 8.—Insular revenue expenditures—Executive—for the fiscal year ending June 30, 1912, on account of fiscal years 1912, 1911, and 1910—Continued.**

	On account of appropriations for—		Total expenditures, 1912.
	1912	1910 and 1911	
<b>Office of labor, charities, and correction—Continued.</b>			
<b>Penal institutions—Continued.</b>			
<b>Arecibo Jail—</b>			
Salaries.....	\$4,848.00		\$4,848.00
Contingent expenses—			
Food for prisoners.....	2,546.07		2,546.07
Lighting.....	157.40		157.40
Water.....	145.83		145.83
Incidentals.....	510.97		510.97
	8,208.27		8,208.27
<b>Guayama Jail—</b>			
Salaries.....	4,171.00	\$60.00	4,231.00
Contingent expenses—			
Food for prisoners.....	4,828.64		4,828.64
Incidentals.....	588.88		588.88
	9,588.52	60.00	9,648.52
<b>Aguadilla Jail—</b>			
Salaries.....	2,988.33		2,988.33
Contingent expenses—			
Food for prisoners.....	1,605.01		1,605.01
Rent of jail.....	690.00		690.00
Incidentals.....	561.81		561.81
	5,815.15		5,815.15
<b>Vieques Jail—</b>			
Salaries.....	3,623.00		3,623.00
Contingent expenses—			
Food for prisoners.....	1,445.44		1,445.44
Incidentals.....	586.62	2.58	589.20
	5,655.06	2.58	5,657.64
<b>Total, penal institutions.....</b>	148,959.75	624.26	149,584.00
<b>Total, office of labor, charities, and correction.....</b>	307,438.38	1,178.24	308,616.62
<b>Maintenance of prisoners in municipal jails.....</b>	13,999.22	155.62	14,154.84
<b>Insular police—</b>			
Salaries.....	336,995.30	310.11	337,305.41
Contingent expenses—			
Rent of quarters.....	11,103.62		11,103.62
Stabling, keeping, etc.....	12,310.33	182.89	12,493.22
Transportation.....	12,737.41	187.59	12,925.00
Incidentals.....	13,012.26	1,145.37	14,157.63
Purchase of horses.....	5,654.00		5,654.00
Lighting.....	2,762.68	6.03	2,768.71
Water.....	1,245.86	206.20	1,452.06
Secret and confidential services.....	500.00		500.00
Postage.....	1,400.00		1,400.00
Insular police uniform fund.....	16,162.31		16,162.31
<b>Total, insular police.....</b>	414,883.77	2,040.19	416,923.96
<b>Government of the Island of Culebra—</b>			
Salaries.....	916.64		916.64
Contingent expenses—			
Incidentals.....	269.57		269.57
Construction of cistern and hospital.....	170.00		170.00
<b>Total, government of the Island of Culebra.....</b>	1,356.21		1,356.21
<b>Insular library of Porto Rico—</b>			
Salaries.....	2,277.33		2,277.33
Contingent expenses—			
Incidentals.....	370.05	7.85	377.90
Books, publications, etc.....	1,134.23	281.70	1,415.93
Lighting.....	212.19		212.19
<b>Total, insular library of Porto Rico.....</b>	3,993.80	289.55	4,283.35

SCHEDULE No. 8.—*Insular revenue expenditures—Executive—for the fiscal year ending June 30, 1912, on account of fiscal years 1912, 1911, and 1910—Continued.*

	On account of appropriations for—		Total expenditures, 1912.
	1912	1910 and 1911	
Office of labor, charities, and correction—Continued.			
Expenses of election in Porto Rico.....	\$7,214.79		\$7,214.79
Civil Service Commission—			
Salaries.....	8,429.25		8,429.25
Contingent expenses.....	904.08	\$52.47	956.55
Total, Civil Service Commission.....	9,333.33	52.47	9,385.80
Sanitation:			
Sanitation service of Porto Rico, indefinite.....	551,921.11		551,921.11
Tropical and transmissible diseases service.....		70.39	70.39
Supplies, repairs, etc., for laboratory.....		96.98	96.98
Water for laboratory.....		.50	.50
Instruction in elementary principles of hygiene.....	822.08		822.08
Insular school for training nurses.....	2,139.26	1.38	2,140.64
Sanatorium of the Antituberculosis League.....	7,997.16		7,997.16
Leper colony—			
Salaries.....	3,120.56		3,120.56
Contingent expenses—			
Subsistence.....	4,172.52		4,172.52
Clothing, bedding, etc.....	2,477.77	2.96	2,480.73
Improvements for the leper colony.....	2,270.60		2,270.60
Emergency fund for control and suppression of epidemics.....	3,630.41		3,630.41
Suppression of anemia in Porto Rico.....	166.00		166.00
Creation and maintenance of an institute of tropical medicine.....	2,400.00		2,400.00
Representation of Porto Rico at the International Tuberculosis Congress in San Sebastian, Spain.....	1,000.00		1,000.00
Total sanitation.....	582,117.42	171.21	582,288.63
Total, as per recapitulation below.....	3,972,265.07	50,542.88	4,022,807.95

RECAPITULATION.

Office of the governor.....	\$13,177.22	\$49.38	\$13,226.60
Office of the secretary.....	687,064.89	6,508.70	693,573.59
Office of the attorney general.....	38,437.55	28.11	38,465.66
Office of the treasurer.....	221,983.75	4,067.91	226,051.66
Office of the auditor.....	46,769.89	1,283.98	48,053.87
Department of the interior.....	619,301.97	15,605.95	634,907.92
Department of education.....	1,005,172.88	18,466.57	1,023,639.45
Department of labor, charities, and correction.....	307,438.38	1,178.34	308,616.72
Maintenance of prisoners in municipal jails.....	12,999.22	155.62	13,154.84
Insular police.....	414,883.77	2,040.19	416,923.96
Government of the Island of Culebra.....	1,356.21		1,356.21
Insular library of Porto Rico.....	3,993.80	289.55	4,283.35
Expenses of election in Porto Rico.....	7,214.79		7,214.79
Civil Service Commission.....	9,333.33	52.47	9,385.80
Sanitation service.....	582,117.42	171.21	582,288.63
Total, executive expenditures.....	3,972,265.07	50,542.88	4,022,807.95

**SCHEDULE No. 9.—Insular revenue expenditures—Judicial—for the fiscal year ending June 30, 1912, on account of the fiscal years 1912, 1911, and 1910.**

	On account of appropriations for—		Total expenditures, 1912.
	1912	1910 and 1911	
<b>United States District Court:</b>			
Salaries.....	\$28,920.53	\$138.89	\$29,059.42
Contingent expenses—			
Purchase of law books.....	69.55	49.50	119.05
Traveling expenses of marshals.....	760.36		760.36
Traveling expenses of the court.....	1,557.96		1,557.96
Incidental expenses of the court.....	2,035.13	18.47	2,053.60
Incidental expenses of the district attorney's office.....	9.26		9.26
Water.....	33.35	10.00	43.35
Lighting.....	128.40		128.40
Fees and mileage of witnesses.....	1,456.23		1,456.23
Fees and mileage of jurors.....	6,648.95	30.00	6,678.95
Fees United States Commissioners.....	168.20	211.40	379.60
<b>Total United States District Court.....</b>	<b>41,787.92</b>	<b>458.26</b>	<b>42,246.18</b>
<b>Insular courts:</b>			
Salaries, supreme court of Porto Rico.....	42,939.69		42,939.69
Salaries—			
District court of—			
San Juan.....	26,193.98		26,193.98
Ponce.....	16,730.80		16,730.80
Mayaguez.....	16,269.33		16,269.33
Arecibo.....	15,248.87		15,248.87
Humacao.....	14,843.32	58.33	14,901.65
Guayama.....	15,128.15	25.00	15,153.15
Aguadilla.....	14,816.37		14,816.37
Municipal courts.....	84,488.70	100.78	84,589.48
<b>Total salaries insular courts.....</b>	<b>246,659.21</b>	<b>184.11</b>	<b>246,843.32</b>
Contingent expenses—			
Incidentals—			
Supreme court.....	3,447.49	35.70	3,483.19
District courts.....	6,814.89	177.93	6,992.82
Municipal courts.....	5,735.27	115.72	5,850.99
Water—			
Supreme court.....	4.05		4.05
District courts.....	98.50	15.00	113.50
Lighting—			
Supreme court.....	26.35		26.35
District courts.....	208.96	14.10	223.06
Purchase of law books and law reports supreme court.....	1,500.00		1,500.00
<b>Total.....</b>	<b>17,835.51</b>	<b>358.45</b>	<b>18,193.96</b>
<b>Miscellaneous items—</b>			
Rent of courthouses—			
District courts.....	1,980.00		1,980.00
Municipal courts.....	5,141.63		5,141.63
Traveling expenses—			
Judges and fiscals.....	2,772.58	32.59	2,805.17
Municipal court officials.....	3,468.82	4.75	3,473.57
Marshals, municipal courts.....	1,189.05	12.00	1,201.05
Marshals, district courts.....	223.22		223.22
Care of horses.....		3.33	3.33
Care of horses, municipal courts.....	3,368.67		3,368.67
Care of horses, district courts.....	3,246.32		3,246.32
Chemical analyses.....	10.00		10.00
Autopsies.....	784.00	45.00	829.00
Fees of witnesses—			
Insular courts.....		81.20	81.20
District courts.....	19,831.06		19,831.06
Municipal courts.....	2,040.92		2,040.92
Fees of jurors and incidental expenses of jury procedure.....	23,899.20	4.06	23,903.26
Fees of witnesses and jurors in cases of lunacy.....	1,729.25	30.00	1,759.25
Publication of the decisions of the supreme court.....	33,350.30		33,350.30
Advance sheets and digest.....	119.70		119.70
Rent and transportation.....	242.57		242.57
Law libraries for district courts.....	3,049.92		3,049.92
<b>Total.....</b>	<b>106,446.91</b>	<b>212.87</b>	<b>106,659.78</b>
<b>Registrars of property:</b>			
Salaries, registrars of property—			
San Juan.....	11,974.98		11,974.98
Ponce.....	5,414.66		5,414.66
Mayaguez.....	5,401.33		5,401.33
Arecibo.....	4,580.00		4,580.00
San German.....	3,473.33		3,473.33
Humacao.....	3,080.00		3,080.00



SCHEDULE NO. 8.—*Insular revenue expenditures—Judicial—for the fiscal year ending June 30, 1912, on account of fiscal years 1912, 1911, and 1910—Continued.*

	On account of appropriations for—		Total expenditures, 1912
	1912	1910 and 1911	
Registrars of property—Continued.			
Salaries, registrars of property—Continued.			
Caguas.....	\$2,800.00		\$2,800.00
Guayama.....	3,298.33		3,298.33
Aguadilla.....	2,250.00		2,250.00
Total.....	42,332.63		42,332.63
Contingent expenses—			
Incidentals.....	2,322.64	80.40	2,413.04
Rent of offices.....	2,686.00		2,686.00
Total.....	5,017.64	80.40	5,108.04
Total registrars of property.....	47,350.27	80.40	47,440.67
Total judicial expenditures.....	400,079.82	1,304.09	401,383.91

SCHEDULE NO. 10.—*Insular revenue expenditures—Miscellaneous—For the fiscal year ending June 30, 1912, on account of fiscal years 1912, 1911, and 1910.*

	On account of appropriations for—		Total expenditures, 1912
	1912	1910 and 1911	
Miscellaneous expenditures subject to the approval of the governor	\$18,070.44	\$489.15	\$18,569.59
Compilation, printing, and distribution of a register of Porto Rico.....		1,762.17	1,762.17
Agricultural development in Porto Rico.....	332.49		332.49
Board of commissioners of agriculture.....	5,348.71		5,348.71
Introduction of beneficial birds, insects, and parasites.....	2,679.32		2,679.32
Installation of the Legislative Assembly halls and removal of the attorney general's office.....	114.54		114.54
Insular fair board—No fiscal year.....	21,285.98		21,285.98
Payment of expenses in advertising the sale of property on account of delinquent taxes.....	45.00		45.00
Promoting the development of commerce and agriculture of Porto Rico.....	22,140.49		22,140.49
Relief of Eladia Cruz de Jiménez.....	2,000.00		2,000.00
Relief of Manuela and Consuelo Menchaca Rodríguez.....	400.00		400.00
Relief of Pedro de Castro.....	150.00		150.00
Relief of Geo. W. Roberts.....	50.00		50.00
Relief of Misses Consuelo and Acela Menchaca Rodríguez, and Margarita Callejo.....	300.00		300.00
Relief of Hermínio Díaz Navarro.....	142.15		142.15
Relief of E. D. Delgado.....	90.96		90.96
Relief of first-class district chief Francisco Cabrera.....	1,000.00		1,000.00
Relief of the children of laborer José Santos.....	1,000.00		1,000.00
Relief of the estate of Hon. Martin E. Gill.....	625.00		625.00
Attorney's fees and expenses of J. Henri Brown.....	5,000.00		5,000.00
Reimbursement to Hon. E. G. Dexter.....	55.00		55.00
Repatriation of certain Porto Ricans now in Mexico.....	2,554.37		2,554.37
Representation of Porto Rico at the medical convention in Chicago.....	400.00		400.00
Purchase of an oil painting of Hon. José Severo Quiñones.....	500.00		500.00
Expenses of special investigations of franchises and public utilities.....	287.98		287.98
Committee to Washington to defend Porto Rican products.....	12,055.16		12,055.16
Relief of the grandchildren of Román Baldorioty de Castro.....	333.36		333.36
Salary, English teacher, Porto Rican Benevolent Society.....	675.00		675.00
Insular fair board.....	2,500.00		2,500.00
Collection of historical data of Porto Rico.....	1,100.00		1,100.00
Special service fund.....	2,500.00		2,500.00
Fees and expenses:			
Board of medical examiners.....	1,361.31		1,361.31
Board of pharmacy.....	577.04		577.04
Board of dental examiners.....	139.46		139.46
Repayment of taxes improperly collected.....	1,396.53		1,396.53
Repayment of fees, fines, and moneys improperly collected by secretaries and marshals of the insular courts.....	16.00		16.00
Redemption of insular bonds for roads.....	17,000.00		17,000.00
Total.....	128,426.29	2,261.32	127,687.61

**SCHEDULE No. 11.—Trust fund expenditures—Payments to municipalities of taxes collected for them by the insular Government fiscal year ending June 30, 1912.**

**MUNICIPAL PROPERTY TAX AND MUNICIPAL SCHOOL TAX.**

Months.	Municipal property tax.			School tax.	Total.
	General fund.	Road fund.	School fund.		
September.....	\$96,225.79	\$11,720.30	\$36,648.67	\$16,204.19	\$162,798.95
October.....	182,945.70	19,183.66	67,376.51	29,918.64	299,424.53
November.....	184,037.62	20,914.42	71,176.46	31,272.32	307,400.72
December.....	26,523.50	4,644.66	9,399.37	5,472.43	46,039.96
January.....	15,783.49	422.38	3,532.03	225.77	19,963.67
February.....	19,454.34	2,067.93	7,181.26	3,155.66	31,879.19
March.....	296,608.42	35,943.61	114,513.41	55,278.14	501,338.58
April.....	42,550.84	1,359.94	10,639.66	95.41	54,645.84
May.....	89,916.45	9,360.77	30,759.15	13,568.64	136,625.01
June.....	30,522.38	3,420.10	11,314.13	4,938.97	50,195.56
Total.....	978,563.43	100,057.79	362,540.64	160,150.17	1,610,312.03

**MUNICIPAL BOND REDEMPTION TAX.**

Months.	San Juan.	Mayaguez.	Ponce.	Arecibo.	Total.
September.....	\$108.53	\$601.99	\$925.20	\$1,395.17	\$3,030.99
October.....	26,412.07	8,605.73	6,656.63	3,488.00	45,162.43
November.....	6,806.92	2,859.52	3,969.54	2,071.40	15,707.38
December.....	3,566.68	3,422.51	964.43	636.50	8,590.12
January.....				.59	.59
February.....	2,333.34	759.82	716.76	286.46	4,096.38
March.....	30,508.37	9,540.40	10,035.83	4,059.22	54,143.82
May.....	5,359.32	2,572.21	1,755.77	3,118.97	12,806.27
June.....	2,237.87	965.84	580.24	193.13	3,977.08
Total.....	77,333.10	29,328.02	25,604.50	15,549.44	147,815.06

**SCHEDULE No. 12.—Trust fund expenditures—Road bond fund—Fiscal year ending June 30, 1912.**

Insular bond fund for road construction:	Total expenditures.
Proceeds of sale of insular bonds for road construction, acts of 1906—	
1907-1910.....	\$319,546.04

SCHEDULE No. 13.—*Trust fund expenditures—Miscellaneous—Fiscal year ending June 30, 1912.*

Under supervision of the Commissioner of the Interior:

Irrigation fund.....	\$1,389,678.76
Special deposit, Juan R. Baiz.....	1,312.09

Total..... \$1,390,990.85

Under supervision of the Commissioner of Education:

School extension in Porto Rico—

General account.....	4.94
Sabana Grande Schoolhouse.....	1,000.00
Expenses school exhibit at insular fair.....	737.58
Repairs to Aibonito Barracks.....	270.55

School building fund—

Construction of schoolhouse—	
Aguada.....	3,126.76
Corozal.....	109.50
Ciales.....	6,633.32
Vega Alta.....	8,359.50
Trujillo Alto.....	2,197.32

University agricultural fund.....	33,771.44
University fund.....	24,782.16

Total..... 80,993.07

Under supervision of the auditor:

Insular bond redemption tax—

Payment on principal of road bonds.....	50,000.00
Interest on road bonds.....	31,000.00
Refunds.....	151.43
Outstanding liabilities.....	2,650.22
Teachers' pension fund.....	748.90
Cash bond deposits.....	19,625.00
Insular police relief fund.....	1,196.74
Franchise deposits.....	1,128.80
Salaries, Treasury agents.....	338.67
Sale of articles and work done, Boys' Charity School.....	1,931.28
Funds for insular fair.....	31,906.23
Taxes paid under protest.....	73,076.02
American Surety Co., collected on account of bond of Antonio A. Rodas, late collector of internal revenue at Adjuntas.....	24.02
Special deposit—	
José Santos.....	33.00
William C. Lockwood.....	28.80

Total..... 213,837.11

Total miscellaneous expenditures..... 1,685,821.03

## EXHIBIT C.

*Loans of the insular Government to the municipalities under acts of the Legislative Assembly, approved Mar. 10, 1904, and amended Feb. 14, 1906.*

Municipalities.	Amount of loans July 1, 1911.	Loans made during year.	Amount repaid during year.	Total amount of loans June 30, 1912.
Adjuntas.....	\$5,333.33		\$1,333.33	\$4,000.00
Aguadilla.....	5,127.75		1,282.32	3,845.43
Aguaa Buenas.....	2,500.00		1,300.00	1,200.00
Albionito.....	7,100.00		1,300.00	5,800.00
Arecibo.....	6,983.92		1,000.00	5,983.92
Bayamon.....	11,078.86		2,992.48	8,086.38
Cabo Rojo.....	8,533.31		1,579.72	6,953.59
Caguas.....	36,000.00		6,000.00	30,000.00
Camuy.....	400.00	\$1,000.00	400.00	1,000.00
Cayey.....	28,412.91		3,551.61	24,861.30
Cidra.....	916.67		229.17	687.50
Coamo.....	15,625.00		3,125.00	12,500.00
Dorado.....	4,200.00		100.00	4,100.00
Guayama.....	10,000.00		2,000.00	8,000.00
Hatillo.....	500.00		500.00	
Juana Diaz.....	3,600.86		1,000.00	2,600.86
Lajas.....	2,000.00		1,000.00	1,000.00
Las Marias.....	4,527.99		1,809.08	2,718.91
Loiza.....	11,200.00		1,600.00	9,600.00
Mayaguez.....	14,000.00	2,000.00	7,000.00	9,000.00
Moca.....		500.00	500.00	
Morovis.....	1,500.00		500.00	1,000.00
Patillas.....	1,733.34		866.66	866.68
Ponce.....	38,400.00	16,000.00	3,200.00	51,200.00
Quebradillas.....	125.00		125.00	
Salinas.....	3,566.67		1,783.33	1,783.34
San German.....	10,494.77		2,900.00	7,594.77
San Juan.....	47,285.71		18,428.57	28,857.14
San Lorenzo.....	1,000.00	1,200.00	1,000.00	1,199.00
San Sebastian.....	1,551.91			1,551.91
Santa Isabel.....	6,318.89		1,318.89	5,000.00
Toa Alta.....	831.00		231.00	600.00
Toa Baja.....	750.00		150.00	600.00
Utua.....	23,300.00		2,808.15	20,491.85
Vega Baja.....	2,919.87		1,289.51	1,630.36
Yabucoa.....	9,600.00		2,000.00	7,600.00
Yauco.....		12,000.00		12,000.00
Total.....	327,415.76	32,700.00	74,974.82	285,140.94

## EXHIBIT D.

*Loans of the insular Government to the school boards under acts of the Legislative Assembly, approved Mar. 10, 1904, and amended Feb. 14, 1906.*

School boards.	Amount of loans July 1, 1911.	Loans made during year.	Amount repaid during year.	Total amount of loans June 30, 1912.
Afasco.....	\$553.10	\$44.60	\$200.00	\$397.70
Arecibo.....	24,000.00		3,000.00	21,000.00
Arroyo.....	1,833.24		611.11	1,222.23
Caguas.....	5,600.00		2,800.00	2,800.00
Coamo.....	2,000.00		800.00	1,200.00
Fajardo.....	8,400.00		2,400.00	6,000.00
Guayama.....	2,000.00		1,000.00	1,000.00
Lajas.....	2,563.74		666.66	1,897.08
Manati.....	4,800.00		600.00	4,200.00
Naranjito.....	1,866.62		123.33	1,743.29
Patillas.....	500.00		100.00	400.00
Pedueñas.....	950.00	250.00	370.00	830.00
Ponce.....	10,500.00		10,500.00	
Rio Piedras.....	1,212.50		437.50	775.00
Sabana Grande.....	428.67		106.67	322.00
Salinas.....	2,000.00		1,000.00	1,000.00
San German.....	800.00		400.00	400.00
San Juan.....	43,114.28		11,042.98	32,071.42
Toa Baja.....	750.00		150.00	600.00
Yauco.....	4,000.00		1,000.00	3,000.00
Total.....	119,970.26	294.60	35,098.13	85,166.73

## EXHIBIT E.

*Statement of customs refund by the United States to Porto Rico under the provision of the acts of Congress approved Mar. 24 and Apr. 12, 1900.*

Total amount of advances and payments by the Treasurer of the United States to The People of Porto Rico on account of customs revenues collected in the United States on importations from Porto Rico. The sums paid to the treasurer of Porto Rico by the Treasurer of the United States were placed on the books of the auditor's office to the credit of the appropriation "Allotment from appropriation of revenues collected on importations from Porto Rico to the United States," and amounted in all to..... \$1,900,183.86

*Amounts from which were distributed by transfers authorized by the governor to various trust-fund appropriations for public and permanent improvements, as follows:*

	Appropriated by transfer.	Amount expended.	Unexpended balance.
Construction and repair of country roads.....	\$1,304,177.52	\$1,298,427.52	.....
Transferred to general allotment.....		6,750.00	.....
Maintenance and repair of roads, removal of landslides.....	10,855.00	10,855.00	.....
School extension.....	429,076.50	429,076.76	\$2,399.74
Insular Normal School, purchase of site.....	3,500.00	3,500.00	.....
Transfers to insular revenues.....	82,329.17	82,329.17	.....
Insular Normal School, erection of building.....	31,500.00	31,500.00	.....
Insular Normal School.....	21,000.00	21,000.00	.....
University of Porto Rico, purchase of land.....	10,000.00	9,707.28	.....
Transferred to general allotment.....		292.72	.....
Refund of duties to contractors, paid on material used on public works.....	6,000.00	1,254.84	.....
Transferred to general allotment.....		4,745.16	.....
Claims paid Red "D" Steamship Co., freight on coin shipments.....	291.05	291.05	.....
Payment of saving fund, penitentiary.....	128.74	128.74	.....
Amount advanced to road supervisor at Humacao for completion of Fajardo-Fajardo Playa Road..... \$500.00			.....
Less repayment of..... .43			.....
	499.57	499.57	.....
Total.....	1,899,357.55	1,899,957.81	2,399.74

Unexpended balance..... \$2,399.74  
Amount expended..... 1,896,957.81

Appropriated by transfer..... 1,899,357.55  
Balance remaining to credit of appropriation "Allotment from appropriations of revenues collected on importations from Porto Rico to the United States," as shown by the appropriation ledgers of the auditor's office..... 11,614.19

Total amount of allotment paid to the treasurer of Porto Rico, including transfer from refund of duties to contractors, purchase of land, University of Porto Rico, and construction and repair of country roads..... 1,910,971.74

## SUMMARY.

Total of the unexpended balance of the appropriations as shown in the foregoing statements of the allotment..... 2,399.74  
Total amount remaining to the credit of the general allotment, as shown by the books of the auditor's office, referred to in the foregoing statement, available for transfer..... 11,614.19

Total available balance of the general allotment and the appropriations created by transfers therefrom, June 30, 1912..... 14,013.93

The balance standing to the credit of the appropriation "School extension in Porto Rico" will be increased from time to time as repayments shall be made by the various municipalities which have built schoolhouses on shares part of the cost of which is to be paid back to the insular Government within a specified time. It may also be decreased on account of advances to municipalities for the same purpose and under the same conditions.

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